

**PHYSICIAN DISTRIBUTION IN A LARGE HEALTH CARE SYSTEM**

**LTC Andrew B. Cornell, Sr., USA**

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IN  
A LARGE HEALTH CARE SYSTEM**

BY

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## PREFACE

With the Cold War over, the Department of Defense and, more specifically, the Department of the Army are now going through major changes. The American taxpayer believes he is due a large peace dividend. This implies that the military structure can be significantly downsized to perform a much more limited mission. Care must be taken with the downsizing, however, to keep a ready and reliable defense force. Less obviously, care must be taken to not cut things from the military that will be needed in the future. One of these many things to carefully evaluate before wholesale reductions in force is the military medical system.

Of the 2.7 million eligible military medical beneficiaries now cared for by the Army, some 2.4 million will remain at the same time the active-duty (Army) force is reduced from a high of 780,000 to 535,000. The reason the beneficiary population will be only slightly reduced is that the military takes care of a large population of active-duty family members, retiree and retiree family members. These populations will not be reduced significantly during the reduction in force. In fact, many soldiers will leave the Army by retiring, which means they and their families will retain their military medical benefits.

This paper explains how physicians were distributed in the past, the various missions the Army Medical Department (AMEDD) performs, and a methodology for "rightsizing" the future AMEDD. Any changes in physician distribution must be orchestrated in concert with a thorough functional analysis of what the nation wants from its military medical system. Several recommendations will be made about the best way to proceed with "rightsizing" the AMEDD.

## **SUMMARY**

Physician Distribution in a Large Health Care System

by

Lieutenant Colonel Andrew B. Cornell, Sr. USA

This paper presents both a historical perspective of physician distribution in the U.S. Army Health Services Command and a glimpse at how the Army might "rightsize" its future physician distribution in what is generally perceived will be a smaller active-duty Army Medical Department (AMEDD).

The intended audience is Army health care administrators, as well as any interested health care managers in the Department of Defense and the American College of Healthcare Executives. Ultimately, it is also my hope to see this project published as a RAND document, since I am presently performing a one-year fellowship there and would like to add it to RAND's library about military medical services.

This paper argues that the Army is increasingly operating in a more cost effective and business-like manner. Further, the paper argues that AMEDD leadership can assume control of active-duty and civilian providers in each of its communities to better provide ready access to high-quality, cost-effective health care. The paper is designed to inform. It will briefly describe how physicians were distributed in the past. The legitimate and primary missions of the AMEDD will be presented, along with some tools to help health care managers design the most effective AMEDD for the future. The conclusions and recommendations are designed to spur action on necessary initiatives to optimally manage physician distribution for the future.

## **ACKNOWLEDGMENTS**

I have been blessed and empowered to do this research by more people than I could possibly name. It is important to list some of the very important people who have helped me in this and in many other endeavors.

First, I would like to thank my wife, Janet Carol, and my two children, Andrew Jr. and Rebecca, for putting up with my long hours and frequent absence from the home to prepare this manuscript. I would also like to recognize their ongoing love and support for me.

Of the many AMEDD executives and staff who have mentored and coached me to a better understanding about physician distribution, there are some who truly stand out. In the beginning, Colonel Ron Brenz at Health Services Command, along with Colonel Melvin Butler and Major General John Major, challenged me to capture data, analyze it, and try to understand our physician distribution system. Later, at the Office of the Surgeon General (OTSG), Major General Michael Scotti, Jr.; Major General Ron Blanck; Colonel Bill Bell; Mrs. Charlotte Carter; Colonel Earl Fauver (Graduate Medical Education); LTC Earl Newsome; Mrs. Dee Pfeiffer; Major Tom Williams; Major Tim Williamson; and many many others helped to improve my understanding and suffered through countless questions and requests for support. Friends at Personnel Propriety, Health Services Command, the U.S. Army Personnel Command, and throughout the staff at OTSG helped me in more ways than I could list here.

Finally, the RAND staff was supportive of my research and reviewed my manuscript. My mentor, Sue Hosek, as well as Beth Lachman, Bruce Bennett, other people on the medical structure research project, and Paul Steinberg of the Communications Analysis office, provided critical review and many suggestions on how to improve this work.

This project has been fun. I have been nurtured and richly blessed by family and friends while undertaking it. I hope it provides insight to its readers as to the real issues in providing physician staffing for any large health maintenance organization (HMO). It might even bring into focus some issues that must be undertaken in modifying the American health care delivery system as the new Clinton Administration undertakes health care reform.

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## LIST OF ACCRONYMS AND GLOSSARY

ACGME - Accreditation Committee on Graduate Medical Education (of AMA)

AMA - American Medical Association

AMEDD - Army Medical Department

AOC - Area of Concentration or Occupational Specialty

AWU - Ambulatory Work Unit is a methodology of affording relative resource intensity weights to different types of outpatient visits (e.g. more weight for a cardiology visit than a dermatology visit). In all there are 56 discreet AWU categories. The methodology was developed by Health Care Studies/Clinical Investigation Activity of the US Army Health Services Command.

BES - Army "sanctioned" or Budgeted End Strength of active duty military personnel

CHAMPUS - Civilian Health and Medical Program of the Uniformed Services

CAM - CHAMPUS Area Management

CAT Scanner - Computer Assisted Tomography

CRI - CHAMPUS Reform Initiative

CRNA - Certified Registered Nurse Anesthetist

DAC - Department of Army Civilian

DEERS - Defense Eligibility Enrollment System

DOD - Department of Defense

DRG - Diagnosis Related Group (of different clinical diagnoses that are of similar resource intensity) requiring inpatient (hospital) care.

EAMC - Eisenhower Army Medical Center in Augusta, Georgia

FAMC - Fitzsimmons Army Medical Center in Denver, Colorado

Flavors - As used in this paper, refers to different sources of health care providers (active duty military, DAC, CHAMPUS, NP's, PAs, etc)

FORSCOM - US Army Forces Command, Fort McPherson Georgia

FTE - Full Time Equivalent or Man-Year

FY - Fiscal Year

GME - Graduate Medical Education

GMENAC - Graduate Medical Education National Advisory Council

Green Book - Refers to the Accreditation manual of the Accreditation Committee on Graduate Medical Education published annually by the AMA

HMO - Health Maintenance Organization

HPSP - Health Professional Scholarship Program, a government sponsored scholarship program which incurs an obligation to serve a specified number of years on active duty.

HSC - US Army Health Services Command, Fort Sam Houston, Texas

IWU - Inpatient Work Unit which is a DOD normalized DRG

JCAHO - Joint Commission on Accreditation of Healthcare Organizations

JTF - Joint Task Force (Combined Army, Navy, and/or Air Force)

MACOM - Major (Army) Command (e.g. FORSCOM, TRADOC, SOCOM, HSC, etc)

MASH - Mobile Army Surgical Hospital (a type of field hospital)

MAL - Mission Assignment List

MCO - Medical Corps Optimization (Study) by the Army Surgeon General

MEDDAC - (Military) Medical Department Activity

Clinic = no inpatient capability

Small MEDDAC = less than 50 beds

Medium MEDDAC = 50 to 150 beds

Large MEDDAC = Greater than 150 beds, but not a MEDCEN

MEDCEN - Medical Center, generally with tertiary care and GME; usually 450 or more beds

MRI - Magnetic Resonance Imaging

MTF - Medical Treatment Facility

MWU - Medical Work Unit comprised of Ambulatory Work Units (AWUs) and Inpatient Work Units (IWUs)

NAS - (CHAMPUS) Non-Availability Statement

NP - (Independently credentialled) Nurse Practitioner

OB/GYN - Obstetrics and Gynecology

OTSG - Office of the (Army) Surgeon General

PA - Physician Assistant

**Partners** - Special kind of CHAMPUS provider called Partnership Agreement which permits a civilian physician to provide health care on a discounted fee for service basis relative to the normal CHAMPUS prevailing fee within a given military MTF using office, staff and other MTF resources

**PGY 1** - First Post Graduate Year of medical education, normally referred to as an internship

**PGY 2+** - Second Post Graduate Year of medical education referring to specialty training (Residency) or sub-specialty training (Fellowship).

**PPO** - Preferred Provider Organization(s)

**PRIMUS** - (Contracted) Primary Medical Clinic for the Uniformed Services

**PROFIS** - Professional Officer Filler System

**R&D** - Research and Development

**Rightsizing** - Term used in this paper intended to connote that a smaller (or any) medical force must be sized with regard to physician specialty mix and functional or mission requirements

**RRC** - Residency Review Committee (of ACGME to AMA)

**TAA** - Total Army Analysis

**TRADOC** - US Army Training and Doctrine Command, Fort Monroe, Virginia

**USUHS** - Uniformed Services University of Health Sciences; The DOD operated medical school

**VA/DOD** - Veterans Administration/Department of Defense combination, as in VA/DOD Resource Sharing Agreement

## I. INTRODUCTION

### BACKGROUND

The Army Medical Department (AMEDD) has two primary missions and one important implied mission supporting these primary missions. First, the AMEDD must "conserve the fighting strength" by providing appropriate medical support to any and all Army operations.<sup>1</sup> Second, but very much related to its first mission, the AMEDD is expected to provide "peacetime care" to active-duty personnel and, on a space-available basis, to families of active-duty, to retirees and their eligible family members, and to other designated eligible beneficiaries.<sup>2</sup> Care to other than active-duty beneficiaries that the AMEDD cannot provide is provided as an entitlement of the Civilian Health and Medical Program of the Uniformed Services (CHAMPUS) until age 65, when Medicare entitlements begin.<sup>3</sup> The implied mission supporting these two primary missions is to conduct graduate medical education (GME) within the military to maintain the desired number and mix of active-duty physicians.

As the AMEDD goes about accomplishing its missions, it has tended to distribute active-duty physicians more to maintain the status quo than to objectively distribute scarce physician resources. A decision to assign four internists to a given community hospital occurs because that particular community hospital had four internists last year. The Army manpower staffing standards "system" fosters this attitude. Staffing standards are based on historical workload.<sup>4</sup> Thus, the "fatal flaw" in the "system" is that using historical workload tends to be a self-fulfilling prophecy. The true needs of the community are never

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1 Army Regulation 40-1, Composition, Mission, and Functions of the Army Medical Department. Chapter 1-5, Section B, 1 July 1983.

2 United States Code, Title 10, Chapter 55, Section 1076.

3 United States Code, Title 10, Chapter 55, Section 1079.

4 Army Regulation 570-5, Manpower Staffing Standards System, 30 June 1989.

addressed. For example, because the clinic staff tells 50 appointment requestors per day no appointments are available, potential workload (which would drive a higher staffing requirement) is never recorded. However, new AMEDD leadership has set about changing this paradigm.

AMEDD leadership has embarked on a program of better managing all the health care resources in a given community. This program, called by such names as managed care, coordinated care, and gateway to care, involves combining active-duty physicians with Department of Army Civilian (DAC) physicians, CHAMPUS partnership physicians, contracted physicians, nurse practitioners, physician assistants, VA/DoD resource sharing agreements, contracted clinics, preferred provider organizations (PPOs), and other innovative initiatives to provide a full spectrum of high-quality care, at the lowest possible price, to all eligible military medical beneficiaries.

This new managed care initiative will require medical treatment facility (MTF) commanders to change their orientation about health care. Historically, MTF commanders have focused on activity within the walls of their facilities. Medical activities in the surrounding community have been beyond their control and have commanded little of their attention. As the Army is reduced, by as much as 33 percent over the next few years, the AMEDD structure will also be reduced.<sup>5</sup> Because of the number of retirees now and in the future and because people are living longer, the estimated decrease of military medical beneficiaries is projected to be only 10.8 percent.<sup>6</sup> Thus, MTF commanders will have to employ civilian health care delivery assets from their surrounding communities. At present, even the most casual of observers would agree that the military health care system already resembles an oversubscribed health maintenance organization (HMO).

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<sup>5</sup> Office of the Defense Medical Information System (DMIS) of the Office of the Assistant Secretary of Defense for Health Affairs.

<sup>6</sup> Ibid.

A number of strategies could be embraced to help resolve the problem. Disincentives, like user fees, to minimize utilization could help. Reducing the benefits to certain categories of beneficiaries, like retirees, could help. Reducing quality or level of services could promote access and/or minimize costs but would have as a trade-off the loss of many secondary and/or tertiary care procedures. However, all these strategies would be politically unacceptable.

This brings us to the focal point of this paper. Managing physician distribution in a business-like environment will require some method to objectively define total physician requirements. As a subordinate function, it will also be necessary to identify that portion of total physician requirements that must be met by active-duty physicians to support the needs of the Army. Finally, AMEDD leadership must then commit to a disciplined process that will efficiently and cost-effectively ensure access to high-quality care to all the Army's 2.7 million eligible beneficiaries using a combination of active-duty and civilian health care providers. In fact, the tenets of this paper can be readily expanded to include all of DoD's Medical Systems (Army, Air Force, and Navy).

## OBJECTIVES

This paper reviews the evolution of physician distribution within the United States Army Health Services Command over the past half decade, demonstrating that it has evolved toward a more business-like environment that focuses on objective criteria. More specifically, this paper will:

- Provide data on productivity relative to costs;
- Provide a capitation model to project needs of a given population for particular physician specialties;
- Demonstrate numerous, complex inter-relationships in quantity and specialty mix issues;
- Provide a requirements-driven, zero-based model to portray total physician requirements to perform the AMEDD's various and

complex missions;

- Identify the subset of physician requirements that must be met by active-duty physicians;
- Provide recommendations for AMEDD leadership.

This paper will clearly demonstrate it is both unreasonable and unfair to attempt to perform missions that Congress, DoD, or the Army are not able to resource. When it comes to health care, we owe our soldiers and other eligible beneficiaries cost-effective, quality service--nothing more and nothing less.

#### **APPROACH**

Initially, a review of empirical data portrays physician assignment information including active-duty, DAC, Partners, contracted providers, and physician-extender strengths. Analysis of physician distribution grouped first by MTF and then by medical specialty defines present staffing patterns.

This paper will then briefly review how the AMEDD uses these physician resources to accomplish its two primary missions, readiness and health care delivery, and its implicit mission, GME. The review of GME will attempt to detail its complexity as the process that both acts as a drain on meeting the AMEDD's primary missions and serves to constantly rejuvenate the system by providing new physicians required to support the two primary missions. GME programs will be briefly reviewed, including size of programs, faculty requirements, and necessary faculty and other staff relationships to maintain accreditation.

The paper will discuss how the AMEDD employs its physician resources. The paper will provide population supported data, by community. CHAMPUS non-availability statements (NAS) will be briefly reviewed as a proxy for workload the AMEDD must send out of the military direct care system. Nursing support and physician assistant data will

be introduced as an indicator of non-physician issues that must be considered in modeling physician distribution. Additionally, some key inter-relationships (e.g., psychiatry/social work/psychology, orthopedics/physical therapy, optometry/ophthalmology, and so forth) will be described. HSC's mission assignment list (MAL) procedure will portray how resources are married with assigned missions for each MTF. Finally, data about AMEDD support of recent Army operations, such as the nation-building task force in Honduras (Joint Task Force (JTF) Bravo), will be presented. Using present physician distribution data, this paper will relate that distribution to workload/productivity. In general, the relationship of physician distribution to supported GME programs, populations served, care (necessarily) sent out of the direct care system, assigned medical missions, productivity, and support of military operations will be demonstrated.

Having discussed how the AMEDD has been doing business in the past, this paper will propose a model to facilitate transition through a process entitled "rightsizing" to the future. "Rightsizing" will be illustrated as a capitation model identifying total requirements. Coupled with the capitation modeling process, a "Zero-Based" model will be proposed as the solution to the question: "How do we identify the active-duty component of our total physician requirement?"

#### **ORGANIZATION OF THIS DOCUMENT**

This paper consists of a "Present Physician Distribution" section that will sketch the data sets mentioned in the approach section above. The paper will rely heavily on Appendices. A data set will be introduced and explained as to how it should be used and why it is important. The large sets of data, however, will be provided at the back of the report. Generally, the important inter-relationships between types of providers, as well as, different functions will be modeled.

The third section on "What The AMEDD Does" will revisit the inter-relationships of the readiness, health care delivery, and GME missions. Simply stated these missions intersect in an ever changing Venn Diagram (Figure 1). During Desert Shield/Storm, the area of intersection was increased to afford maximum support of readiness requirements. Conversely, at times of no military conflict, readiness tends to become more separate from GME and health care delivery missions.

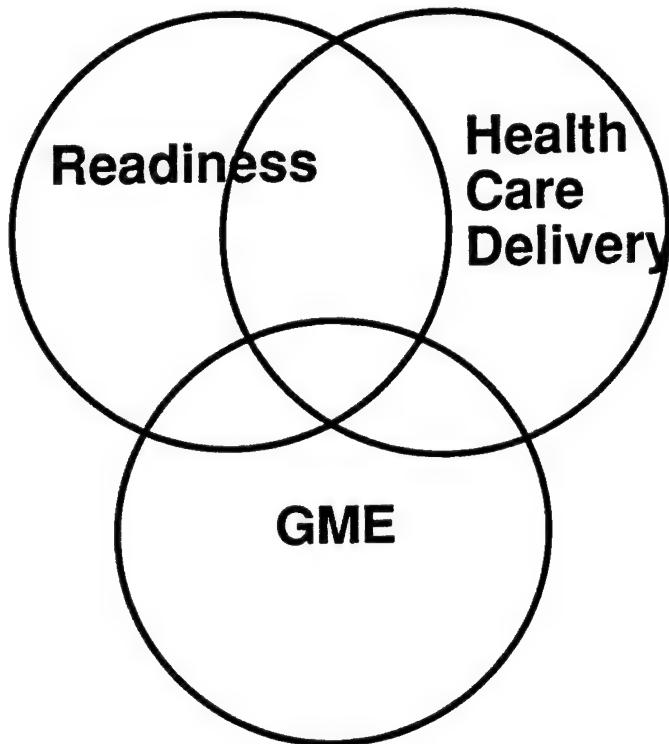


Fig. 1.1—AMEDD Missions

Section four, "Rightsizing," will introduce two models: a capitation model called Medical Corps Optimization, and a requirements-driven model, The Zero-Based Model, to depict minimum active-duty requirements given presently assigned missions.

The concluding section will argue for the direction AMEDD leadership must pursue to transition to the future smaller medical department.

## II. PRESENT PHYSICIAN DISTRIBUTION

America's pluralistic health care "system" is evolving through a Darwinian or "Survival of the Fittest" modality. Instead of being the conclusion of a carefully construed master plan, our "system" tends to be a conglomeration of individuals and organizational entities whose fortunes rise and fall in the ebb and flow of the health care market place. What exists is not necessarily the best possible "system." It is simply what has developed through the consensus of many diverse interests pursuing numerous, sometimes frictional, objectives. While the paper ultimately proposes a need to develop and work to implement a coherent "master plan", this section describes the current physician distribution situation in the Army Health Care System as a subset of the larger American health care system.

### COMPONENTS OF THE HEALTH CARE DELIVERY PROCESS

There are many components to the process of health care delivery. This paper will focus on independently credentialed practitioners, generally physicians. Determining what practitioners are actually in the military health care delivery system is a challenge in its own right. Medical Treatment Facility (MTF) commanders almost always feel understaffed. To emphasize this point, they will generally make urgent requests for active-duty providers while deemphasizing or ignoring the presence of other types of providers they have employed within their facility. I will call these many types of providers "flavors". These different flavors are listed in Figure 2.1.

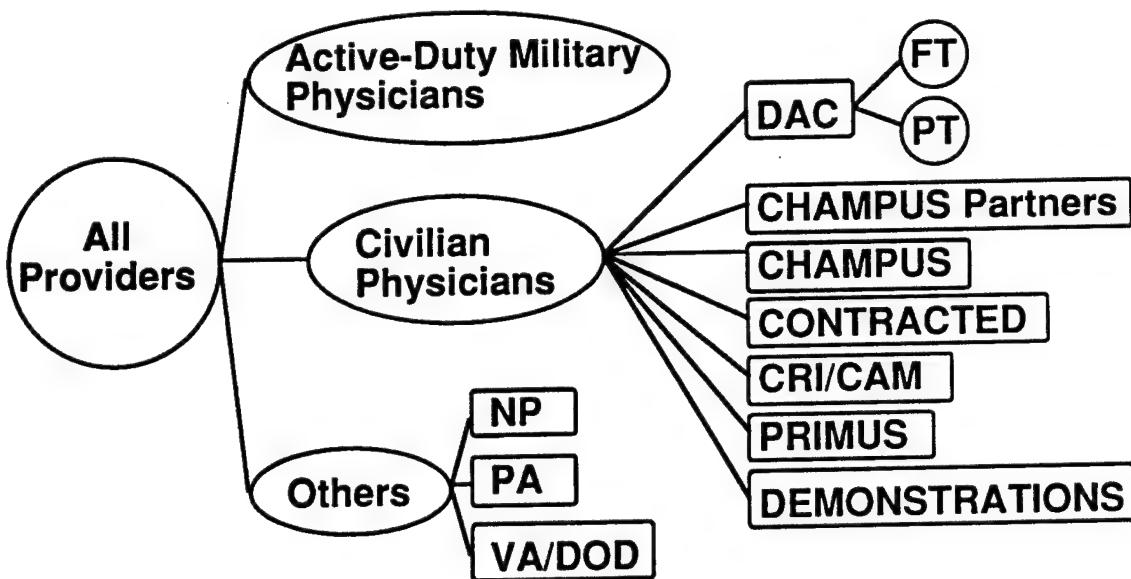


Fig. 2.1—Flavors of Providers

- Active-duty military physicians are, by definition, both full-time employees and part of the uniformed services.
- Civilian physicians include DAC physicians (Department of Army Civilians or Civil Servants), who can be full-time or part-time employees and are employees of the federal government.
- Other kinds of civilian physicians are also available to the military. "Partners" are civilian physicians who are paid from CHAMPUS funds on a fee-for-service basis, usually at a discount from the prevailing charge within their particular community, who work in an MTF but are not Civil Servants. CHAMPUS providers are physicians who work exclusively in the civilian community and are paid by the military through an arrangement resembling health insurance. Yet another "flavor" of civilian provider is the contracted provider. An MTF commander can contract with a civilian physician to provide .5 man-years of service, for example, in his MTF. The difference between DAC physicians partners and contract physicians is virtually transparent to eligible health care beneficiaries because they receive this care for free.

- Other innovations expand the possible flavors of providers even further. Under appropriate physician supervision, nurse practitioners (NPs) and physician assistants (PAs) can be independently credentialed to care for patients. Over the past few years, even more innovations have been embraced to expand these "flavors" of providers even more. Traditional CHAMPUS benefits are available for family members of active-duty personnel and retirees and retiree family members less than 65 years of age. There are sharing agreements between federal entities, like VA/DOD sharing agreements, and there have been demonstration projects, like CRI (the CHAMPUS Reform Initiative) and CAM (CHAMPUS Area Management). Civilian clinics have been contracted to care for military medical beneficiaries (PRIMUS clinics and the Fort Drum Project in which hospital services were also contracted). CHAMPUS and many recent innovations require a user fee and/or co-payment and/or deductible payment by the beneficiary.

#### **TABULATING DIFFERENT PROVIDERS**

To tabulate the different flavors of providers I listed them all by the their particular specialty as if they were all active-duty physicians of the same military Area of Concentration (AOC). This AOC list is provided in Table 2.1 Due to its size, the data base of all these flavors of providers, grouped by MTF and throughout HSC (as of January 1990), was not printed with this manuscript. This sixty one page listing can be available under separate cover from the author of this paper. The data table includes the AOC code on the left most margin permitting the reader to scan across the matrix from left to right identifying the different flavors of providers. Column headings were abbreviated as shown in Table 2.2. From year to year, changes in physician distribution occur only at the margins. Hence, the tables, once constucted represent "What Is" in terms of provider resources within HSC.

Table 2.1  
MILITARY MEDICAL SPECIALTIES

| AOC  | Specialty                   |
|------|-----------------------------|
| 60A  | Executive Medicine Officer  |
| 60B  | Nuclear Medicine            |
| 60C  | Preventive Medicine         |
| 60D  | Occupational Health         |
| 60F  | Pulmonary Disease Officer   |
| 60G  | Gastroenterologist          |
| 60H  | Cardiologist                |
| 60J  | Ob/Gyn                      |
| 60K  | Urologist                   |
| 60L  | Dermatologist               |
| 60M  | Allergist                   |
| 60N  | Anesthesiologist            |
| 60P  | Pediatrician                |
| 60Q  | Pediatric Cardiologist      |
| 60R  | Child Neurologist           |
| 60S  | Ophthalmologist             |
| 60T  | Otorhinolaryngologist (ENT) |
| 60U  | Child Psychiatrist          |
| 60V  | Neurologist                 |
| 60W  | Psychiatrist                |
| 61A  | Nephrologist                |
| 61B  | Medical Oncologist          |
| 61C  | Endocrinologist             |
| 61D  | Rheumatologist              |
| 61E  | Clinical Pharmacologist     |
| 61F  | Internal Medicine           |
| 61G  | Infectious Disease Officer  |
| 61H  | Family Physician            |
| 61J  | General Surgeon             |
| 61K  | Thoracic Surgeon            |
| 61L  | Plastic Surgeon             |
| 61M  | Orthopedic Surgeon          |
| 61N  | Flight Surgeon              |
| 61P  | Physical Medicine           |
| 61Q  | Therapeutic Radiologist     |
| 61R  | Diagnostic Radiologist      |
| 61U  | Pathologist                 |
| 61W  | Peripheral Vascular Surgeon |
| 61Z  | Neurosurgeon                |
| 62A  | Emergency Medicine          |
| 62B  | Field Surgeon (GP)          |
| 600A | Phys Asst                   |
| 00B  | General Officer             |

Table 2.2  
KEY TO COLUMNAR HEADINGS

| Heading   | Definition                        | Remark                 |
|-----------|-----------------------------------|------------------------|
| SSI       | Specialty Skill Identifier        | Same as AOC            |
| OCTASG    | Active Duty Assigned 1 Oct 89     | Army Doctors           |
| CIV FT    | DAC Civilian Physicians           | Per Personnel System   |
| CIV PT    | DAC Civilian Physicians           | Part Time              |
| CIV CL    | DAC Civilian Physicians           | MTF Acknowledged DAC   |
| PARTNER   | CHAMPUS Partnership Agreements    | Fee For Service in MTF |
| CONTR CL  | Contracted Civilian Physicians    | According to MTF       |
| CONTR APR | Contracted Civilian Physicians    | According to HSC       |
| NP        | Nurse Practitioners               | Credentialed Provider  |
| OTHER     | Non-Physician/Non-Nurse Providers | Optom, Podiatry, PT... |
| VA/DOD    | VA/DOD Sharing Agreements         | Where Reported         |
| TOTAL     | Total of all preceding columns    | Note low # for non-AD  |
| REQUESTED | # AD physicians requested by MTF  | Trend towards growth   |
| PLAN      | HSC Distribution Plan             | Pre-Distribution Plan  |
| SGDIST    | Post-Distribution Conference Plan | January Plan-Summer 90 |

Every year, prior to the physician distribution cycle, a narrative summary is solicited from each MTF commander as to his specific needs and most acute shortages with regard to physician distribution. Additionally, MTF commanders report significant particular synergistic relationships (e.g., podiatry with orthopedic surgery or optometrists with ophthalmologists, and so forth). Examples of narrative summaries and comments about synergistic relationships may also be requested from the author of this manuscript.

When a commander cannot accommodate particular inpatient needs within his MTF, he "sends it out" under the Civilian Health and Medical Program of the Uniformed Services (CHAMPUS) by issuing a Non-Availability Statement (NAS) if the patient is CHAMPUS-eligible. If the patient is active-duty and therefore not CHAMPUS eligible, the commander can "send it out" and pay for it under "Supplemental Care" (federal) funds. When a particular health care need cannot be accommodated in the MTF, it is for one of three reasons<sup>7</sup> as indicated in Table 2.3.

<sup>7</sup> Department of Defense Instruction (DODI) 6010.8-R, July 1991, Chapter 4, Section A-9.

Table 2.3  
NAS CODES

| Category | Definition                       |
|----------|----------------------------------|
| A        | Provider Specialty Not Available |
| B        | Facility/Equipment Not Available |
| C        | Clinically Inappropriate         |

HSC maintains NAS Data, by MTF, for use in management/decision information systems. Note that CHAMPUS use does bear some disincentive as the patient incurs a deductible and/or copayment obligation. Therefore, NAS volume might tend to be less than actual health care need assuming the care could be provided within the MTF. Additionally, health care demand in a military MTF might be greater than health care need because free MTF care tends to be over utilized. That is, MTF demand might be greater than community need.

Catchment area populations for each of the HSC MTF catchment areas is also maintained, in a real time modality, within the management/decision information systems at HSC. Eligible military medical beneficiaries who live outside the defined 40 mile catchment areas are presumed to use CHAMPUS or Supplemental Care. These patients are catalogued by the DMIS data system as non-catchment area beneficiaries<sup>8</sup> .

Current GME data and an analysis of GME program requirements is in Appendix A. Specifically, I have listed what training programs are at which medical centers and indicated the present student to faculty ratios. GME will be more fully discussed in Section Three, "What The AMEDD Does."

Empirical data on Nursing Authorized/Assigned is provided in Appendix B. It is important to add this factor into an analysis of physician distribution strength due to synergistic factors. For

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<sup>8</sup> DMIS, Office of The Assistant Secretary of Defense for Health Affairs.

example, if Psychiatrists at Fitzsimmons Army Medical Center are at 128% of authorized levels while psychiatric nurses are at 48% of authorized levels, there is a crisis in the making. The physicians will be frustrated with the level of nursing support while the nurses will justifiably feel overtaxed. This concept goes beyond just nursing support but will not be developed further in this paper.

Summary Physician Assistant data is presented in Appendix C.

Health Services Command uses a Mission Assignment List (MAL) to designate what clinical missions will be assigned at each MTF. If a mission is assigned, it is also then afforded personnel, fiscal, and other resources. Examples of missions that might be assigned include adolescent pediatrics or dermatology. These missions are designated with four assignment codes, as depicted in Table 2.4.

Table 2.4  
MISSION ASSIGNMENT CODES

| Mission Categories   |
|--|
| X - Mission not Authorized   |
| A - Mission Authorized, military (active-duty) or DAC Physician              |
| C - Mission Authorized but to be provided by Contract                        |
| <u>M - Mission Authorized but modified (partnership or other innovation)</u> |

Appendix D is an alphabetical listing of the MAL Codes. The actual MAL can be made available upon request. Note it is in five sections: Clinics without inpatient beds, MTFs with less than 50 beds, MTFs between 50 and 150 beds, MTFs greater than 150 beds but not Medical Centers, and Medical (Teaching) Centers. The complete MAL is over sixty pages long.

Permanent change of station (PCS) Data on physicians who have not moved in four years or who have not been overseas for 10 years is continuously available from the Total Army Personnel Command. PCS data is now regularly used in decisions on who should move. The implication

is that physicians who meet these criteria can be moved, in accordance with Army policy. The frustration with this Army policy is almost always GME. Moving faculty can weaken the accreditation of respective training programs, or a physician forced to move or separate from the military will frequently select the later rather than the former option.

The OTSG Quality Assurance Office maintains a list of unlicensed providers. These must be specially managed. Credentialing and supervision issues are raised by unlicensed providers. An accredited education program can be placed in jeopardy if a faculty member is assigned who is unlicensed, regardless of how good a past clinical performance record (i.e., absence of misadventures). A hospital without education programs, however, presents another type of problem. It is important to assign unlicensed providers to facilities large enough to be more than one deep in the specialty to afford ample supervision.

Appendix E is Medical Work Unit Data (MWU) data comparing facility workloads per provider and provider workload by specialty and by facility. MWUs are comprised of IWUs (Inpatient Work Units resembling DRGs) and AWUs (Ambulatory Work Units). MWUs are designed to measure both productivity and resource intensity. A cardiology work-up, for example, is more resource intensive than a dermatology clinic visit; a cardiac by-pass operation is more resource intensive than a vasectomy. Using Appendix E affords comparison between facilities and specialties. In 1990, for example providers at Fort Belvoir were less productive across all specialties than providers at Fort Campbell. Orthopedic surgeons at Eisenhower Army Medical Center (EAMC) were more productive than those at Fitzsimmons Army Medical Center (FAMC).

Appendix F shows "tasker" data to correctly credit MTFs for absent providers who are performing Army missions elsewhere. It would be unfair to consider FAMC less productive, for example, in orthopedic surgery if 20 percent of its staff were on temporary duty in Honduras while 100 percent of EAMC staff were present and working each day.

The reason for presenting this data is, quite simply, to portray a general overview of what providers are assigned throughout the Health Services Command and to illustrate the heterogeneity of the many functions they are obliged to perform. There are many communities, all special and unique. There are many demands made on these providers and any true analysis must review each community on a case-by-case basis. "Present Physician Distribution" has evolved over time. It may not be optimal, but it is discreet and can be defined. Understanding present physician distribution requires an ability to define and relate the separate pieces of information herein introduced and provided in detail in the appendices.

Table 2.5  
APPENDICES

| Appendix | Title of Data Provided   |
|----------|--------------------------|
| A        | GME Data and Analysis    |
| B        | Nurses                   |
| C        | Physician Assistants     |
| D        | Alphabetical MAL Listing |
| E        | MWU Comparison Data      |
| F        | "Tasker" Data            |

### III. WHAT THE AMEDD DOES

As mentioned earlier, the AMEDD has two primary missions and one implicit one: Readiness, Health Care Delivery, and Graduate Medical Education. There are inter-relationships in these functions, but for the sake of analysis, they are discussed separately.

#### READINESS

Readiness is a military term for saying the AMEDD must be continuously ready for the next war or any other contingency the Army asks it to support. This can be as full scale as mobilization in support of Desert Shield/Storm or as limited as supporting victims of Hurricane Andrew. The vehicle established to provide this support is the Professional Officer Filler System (PROFIS). PROFIS is a roster system that allows physicians (and non-physicians) to be used in two different capacities at the same time. A surgeon at the hospital at Fort Bragg, for example, can be fully employed at the hospital performing surgical cases and conducting clinic on a daily basis but on a PROFIS roster to be deployed with the 5th MASH on 72 hours notice anywhere in the world. In all, the PROFIS system assigns 1,620 physicians to medical teams and units that are designed to deploy and support the needs of the Army.

PROFIS staff must be fully trained in weapons qualification; Nuclear, Chemical, and Biological operations; use of field medical equipment; and all sorts of other field medical operations. This "Army" requirement is in addition to being fully qualified in their respective Medical Specialties. An army physician must be as competent clinically as any other physician practicing medicine in the United States while also being fully qualified as a soldier. This dual status makes medical personnel rather unique in the military. An infantryman's job is to train and be ready to prosecute the next war. However, a medic (doctor) must train to be ready to support the infantryman and simultaneously must work each day in a clinic environment treating the infantryman, his family, retirees, and retiree family members. The good news is that being clinically proficient makes a physician continuously ready to support the soldier (clinically) on the battlefield. The bad news is

that adding military training requirements to an already full load of clinical competence and training requirements is a heavy load.

Besides being part of a contingency force on respective PROFIS rosters, AMEDD staff must also perform other subordinate functions such as leadership positions on major command (MACOM) staffs that include general officer billets, disaster relief, and nation-building roles, like working to provide medical support to Eastern European or South American Nations. The previously introduced Venn Diagram portrays the Readiness related functions (See Figure 3.1).

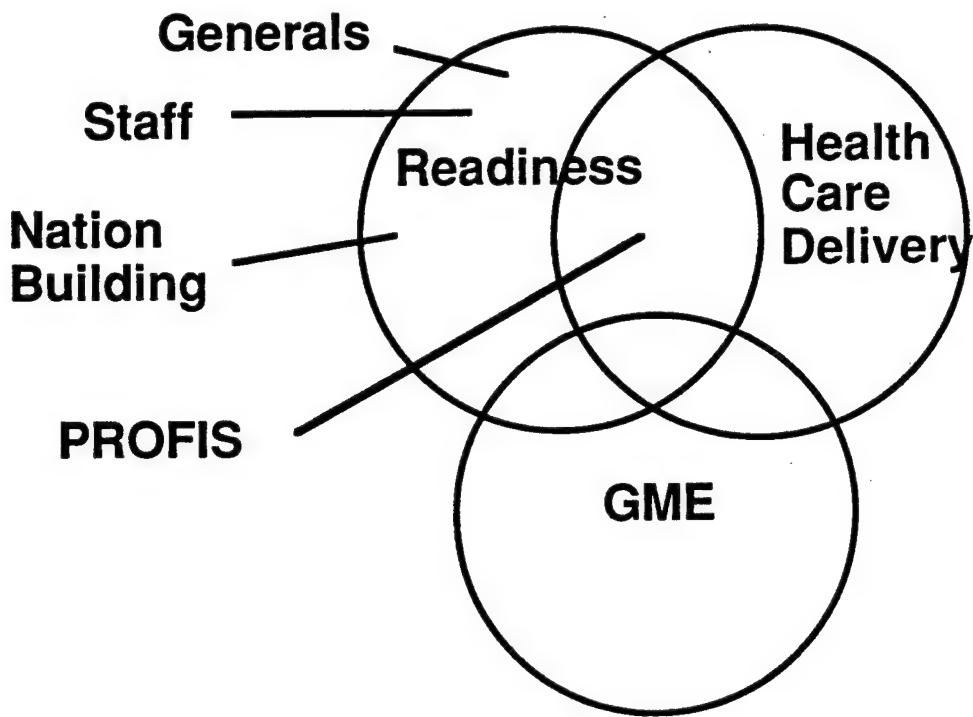


Fig. 3.1—AMEDD Readiness Missions

#### **HEALTH CARE DELIVERY**

In the Army or any other health care delivery system, three issues perennially exist: access, quality, and cost. Unlike the civilian system, however, there is a definable, finite, population. Active-duty, family members of active-duty, retirees, eligible retiree family members, and other designated beneficiaries are readily identifiable in

a Department of Defense information system called DEERS (Defense Eligibility Enrollment System).

The fact that the eligible population can be articulated implies that appropriate access for them can be "programmed" by actuarial models as a function of how many patients a single provider in a given specialty can support. For example, if a professional standard (established by a medical/civilian professional organization) specified that 2,800 persons enrolled in a family practice physician's panel comprised a full panel, then a population of 28,000 persons would need ten family practice physicians. This concept, capitation modeling, can be performed for all specialties and has been by a variety of organizations. In 1980 the Graduate Medical Education Advisory Council (GMENAC) stated that there should be about 197 physicians per 100,000 population.<sup>8</sup> Furthermore, GMENAC even provided guidelines on how many physicians in what specialties would be appropriate.

This GMENAC proposal was intended to provide a "Medical Master Plan" as to how the future medical community in America should be structured. Obviously, we always need more family practice physicians than cardiothoracic surgeons. Family practice physicians are, by definition, primary care physicians while cardiothoracic surgeons are sub-specialists or tertiary care physicians. Primary care physicians receive and treat all sorts of general disease, injury, and illness and refer to cardiothoracic surgeons those cases that need their particular skills. This referral system resembles a feeding chain. More primary care providers are needed at the base of the chain than are subspecialists further up the chain. I will return to this capitation modeling concept in Section 4, "Rightsizing".

One important linch pin should be identified here. If that surgeon mentioned above in the section on readiness was gainfully employed before being dispatched to meet an Army contingency, he must either be replaced with a reserve surgeon, a contracted surgeon, or some other backfill mechanism to prevent the health care delivery mission at Fort Bragg from suffering.

Quality in health care delivery is a much sought after objective, but it is difficult to define. Physicians point to quality as a necessary added cost in any episode of care. If clinic A can treat a patient for \$35 per visit and clinic B treats a similar patient for \$42 per visit, quality differences are almost always alleged to be the cause of the difference. The Joint Committee on Accreditation of Healthcare Organizations (JCAHO) publishes standards on quality and then surveys hospitals to determine if a common and basic standard of quality is being met. Furthermore, Health Care Organizations have internal Quality Assurance Committees and a number of other vehicles exist to monitor quality. Quality can be reviewed on the basis of outcome or process. (Did the patient recover versus was the proper care rendered?) Some would argue that quality also includes availability of "state of the art" equipment (e.g., lithotripters, MRIs, CAT scanners, and others). This equipment also tends to radically inflate the cost of health care.

There is an implied issue in quality that is frequently overlooked. This related issue is "appropriateness". For example, if a urologist inserts a Foley Catheter and bills the patient (or his insurance company) \$210 when a nurse can perform the same procedure (several times per hour) for an hourly salary of \$20 and both have the same clinical outcome, which is more appropriate? These quality issues are all weighed on a daily basis at all medical facilities. Like the old soldier said, "Some things you never get done, like polishing your shoes or your belt buckle. You just keep working on them."

Cost is related to access (for all) and providing quality care. If you must reduce cost, you can limit access (to fewer people) or limit quality (expensive equipment and more marginally efficacious procedures). For this paper, comments about physician distribution are limited to be that if we wish to provide full access to high-quality health care for military medical beneficiaries, we must be willing to provide the right number and mix of health care providers.

Health Care Delivery functions can now be placed upon the AMEDD Missions (Venn) Diagram (Shown in Figure 3.2). At installations overseas, where we place physicians as part of the American military's forward presence but not as part of a wartime contingency, their primary function is health care delivery. This forward presence has been labeled "Forward Deployed." Additionally, those physicians who are significantly less expensive to recruit, train, and retain as active-duty physicians for the delivery of peacetime health care (but not required for wartime contingencies) are labeled "Cost Effective." One other category of health care delivery physician added to the diagram is Continuity. Continuity physician requirements include the most basic cadre of physicians at each MTF and Medical Teaching Center that are required in times of war or in times of peace. The include people like Commanders, Directors of the Medical Staff, and (GME) Teaching Chiefs. Note that some of the functions here and in Figure 3.1 are in the area of intersection on the Venn Diagram.

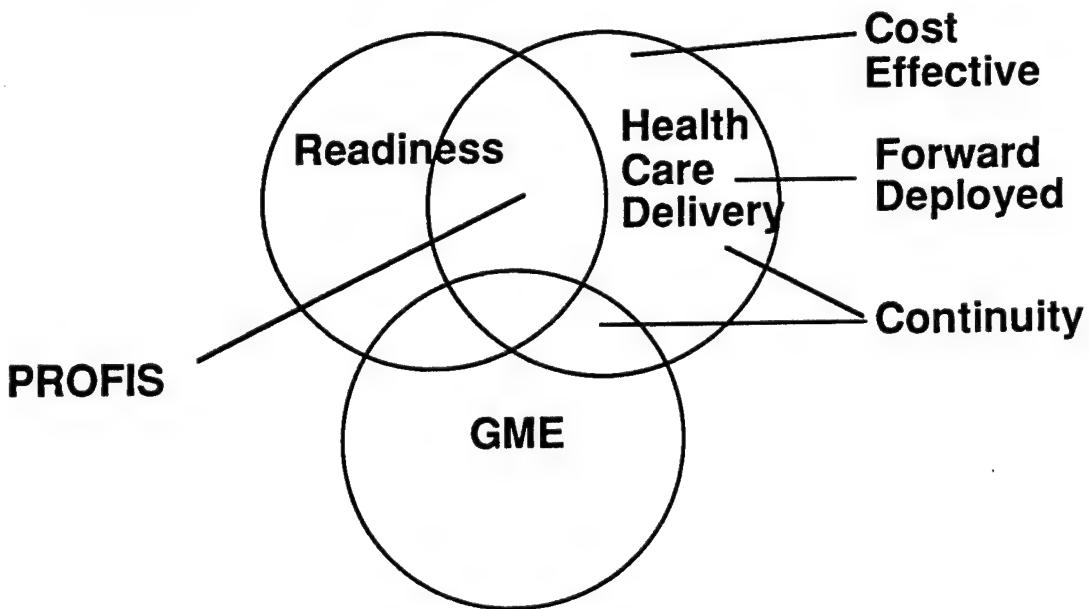


Fig. 3.2—AMEDD Health Care Delivery Missions

Health Services Command uses the Mission Assignment List, MAL (shown in Appendix D) to reconcile resource allocation to services required of particular MTF's as they provide health care within their

catchment areas. If Dermatology is not defensible at a small clinic because of relatively low density workload, for example, it is simply not authorized in that particular clinic. The capitation model will address the issue of expected clinical specialty workload relative to a particular population size, but first we need to take a quick look at Graduate Medical Education.

#### **GRADUATE MEDICAL EDUCATION**

The American Medical Association controls accreditation standards on GME programs in both the military and civilian environments through the Accreditation Committee on GME (ACGME). The ACGME publishes the "Green Book" annually.<sup>9</sup> This book includes evolving changes in accreditation standards on all recognized medical disciplines and lists currently accredited programs throughout the nation, including Army GME Programs. Since a program must be recognized as accredited for a particular physician in a given specialty to apply for board certification, it follows that Army GME must meet accreditation standards.

Consider this example. The Green Book requires a training program in Ophthalmology to have six faculty in order to be accredited. Furthermore, there must be a program director and five different types of ophthalmology subspecialists: Glaucoma, Cornea, Retina, Oculoplastic, and Neuro-ophthalmology. The Green Book also specifies that a physician in training to faculty ratio of 3:1 is permitted. Given six faculty, this means you can have up to eighteen residents. You may not have less than six residents in a program or you do not reach "critical mass." Reading very carefully and discussing the matter with the Consultant to the Surgeon General, it is also possible to ascertain that thirty-two specialties other than ophthalmology must be on the staff at the teaching center to provide "support" to the ophthalmology training program. Ophthalmology residents must have access to a pulmonary disease specialist, a gastroenterologist, and

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<sup>9</sup> The American Medical Association, Directory of Graduate Medical Education Programs 1992 - 1993, Chicago, Il.

others as portrayed at Appendix A. In fact, all of the synergistic relationships are shown along with minimum accreditation requirements at Appendix A.

The reason GME is so important to the medical structure is that it is the rejuvenation step of the life cycle process. If, for example, there are 75 ophthalmologists in the Army and 10-12 per year leave the military because they have paid back the contract obligation (to serve a certain number of years in exchange for having been trained in the Army system) or because they have finished their careers and are retiring, it is necessary to graduate 10-12 residents per year from training.

It should not be surprising that the Army is currently graduating 11 ophthalmology residents per year. Thus, although GME is not a primary mission or an objective in and of itself, it is a means to our primary objectives of Readiness and Health Care Delivery. It must deliver enough graduating interns, residents, and fellows per year to replace the number and mix of physician specialties who leave the military each year.

At the uppermost tier of GME, we should add Research and Development (R&D). These physicians are working to expand medical knowledge. R&D physicians work on the medical effect of weapons systems and medical research, such as a vaccine for HIV or other contagious diseases. While not working directly in the delivery of health care, like the interns, residents, and fellows, R&D physicians are also an implicit part of the AMEDD's. Accordingly, R&D is placed in the GME sphere of the Venn Diagram shown in Figure 3.3..

In conclusion, then, Army GME should be no more and no less than adequate to maintain the desired physician strength, by specialty, required to support the two primary missions. In the final Venn Diagram (Figure 3.3), all the AMEDD missions have been indicated. Section 4 will now present a modeling system to help define readiness and health care delivery requirements - "rightsizing."

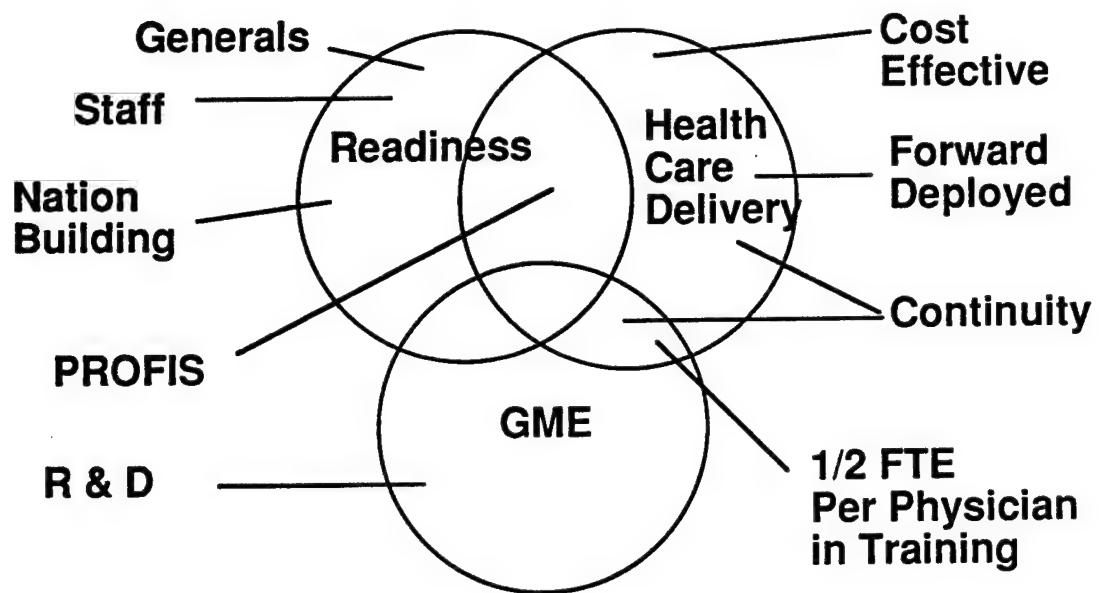


Fig. 3.3—AMEDD Missions Including GME

#### IV. "RIGHTSIZING"

We have discussed what physician distribution presently exists in the Army health care delivery system. We have also generally discussed what functions those physicians are involved in performing for the Army. In this section, we start building a model to support "master plans" for the future Army medical structure and for what this future medical structure should attempt to do. My thesis is that we must build an appropriate form versus function relationship so that validated AMEDD functions are resourced adequately and so that invalid functions are absent from the "master plan." For this "Rightsizing" analysis, I will keep the Readiness, Health Care Delivery and GME mission areas.

##### **HEALTH CARE DELIVERY (PEACETIME)**

As discussed in Section 3, the AMEDD's clientele -- active-duty personnel, active-duty family members, retirees, retiree family members, and other eligible military medical beneficiaries -- is most concerned with their access to high-quality, relatively low cost health care. In 1980, GMENAC discussed the physician component of this health care delivery function. Furthermore, a review of financially successful civilian HMOs also facilitates a "population served to physician (by specialty) ratio." In a much more crude way, even Army (manpower) staffing standards function on a population served to physician ratio, except that manpower staffing standards do not acknowledge unmet demand. Staffing standards only use historical workload to determine number of required physicians, by specialty. In an effort to combine GMENAC, HMO, and manpower staffing standards, the Office of the Chief of the Army Medical Corps performed a study called "The Medical Corps Optimization Study (MCO)" to determine a capitation ratio by physician specialty. That is, we can define, with some certainty, the number and mix of physicians needed to support a given population. These ratios are provided in Table 4.1.

Originally, these ratios were developed in collaboration with each of the Army Surgeon General's Consultants. Upon reviewing GMENAC data, HMO data, Military Manpower Staffing Standards, Professional Standards (e.g., The Association of Obstetrical and Gynecological Surgeons or The American College of Family Physicians), and based on their own experience, each of the consultants worked through a prescribed format to articulate population-to-physician ratios by specialty. Recommended ratios were then communicated throughout HSC in November 1990 for review and comment. The specific process consisted of three steps at each MTF:

- Provide a review or "snapshot" of all currently employed physician assets (all flavors) within their communities.
- Present the proposed ratios with the implied staffing derived from the ratios, given the size of population their MTF supported also being portrayed.
- Solicit agreement or disagreement with the staffing prescribed by the ratios, with appropriate comments.

The consultants made two important observations while validating the survey. First, there was a strong risk of the Hawthorne Effect. Because each MTF would tend to be better staffed using the population-to-physician ratios, commanders tended to readily embrace the capitation methodology. Second, teaching medical centers (MEDCENS), tended not to be staffed on any pretense of a population-supported rationale. Instead, MEDCENS tended to be staffed as required by the respective RRCs (Residency Review Committees) of the ACGME (Accreditation Committee on Graduate Medical Education) of the American Medical Association (AMA) for the training programs they conducted.

Notwithstanding these two important observations, the linear correlation between the proposed staffing ratios and what the MTF commanders (and their staffs) articulated as their true requirements resulted in an "R Squared" statistic of .94. Most unexplained deviation

Table 4.1  
POPULATION TO PHYSICIAN RATIOS

| AOC  | Specialty                   | Population to Physician Ratio |
|------|-----------------------------|-------------------------------|
| 60A  | Executive Medicine Officer  | 16,600                        |
| 60B  | Nuclear Medicine            | 118,800                       |
| 60C  | Preventive Medicine         | 33,900                        |
| 60D  | Occupational Health         | 96,700                        |
| 60F  | Pulmonary Disease Officer   | 45,100                        |
| 60G  | Gastroenterologist          | 39,700                        |
| 60H  | Cardiologist                | 27,100                        |
| 60J  | Ob/Gyn                      | 2,300                         |
| 60K  | Urologist                   | 24,200                        |
| 60L  | Dermatologist               | 54,200                        |
| 60M  | Allergist                   | 71,300                        |
| 60N  | Anesthesiologist            | 12,200                        |
| 60P  | Pediatrician                | 3,000                         |
| 60Q  | Pediatric Cardiologist      | 151,600                       |
| 60R  | Child Neurologist           | 80,000                        |
| 60S  | Ophthalmologist             | 16,800                        |
| 60T  | Otorhinolaryngologist (ENT) | 31,700                        |
| 60U  | Child Psychiatrist          | 24,200                        |
| 60V  | Neurologist                 | 20,400                        |
| 60W  | Psychiatrist                | 8,400                         |
| 61A  | Nephrologist                | 103,600                       |
| 61B  | Medical Oncologist          | 53,100                        |
| 61C  | Endocrinologist             | 130,500                       |
| 61D  | Rheumatologist              | 129,000                       |
| 61E  | Clinical Pharmacologist     | From within 61F               |
| 61F  | Internal Medicine           | 6,200                         |
| 61G  | Infectious Disease Officer  | 138,600                       |
| 61H  | Family Physician            | 2,800                         |
| 61J  | General Surgeon             | 14,800                        |
| 61K  | Thoracic Surgeon            | 86,700                        |
| 61L  | Plastic Surgeon             | 40,900                        |
| 61M  | Orthopedic Surgeon          | 14,600                        |
| 61N  | Flight Surgeon              | 22,600                        |
| 61P  | Physical Medicine           | 104,800                       |
| 61Q  | Therapeutic Radiologist     | From within 61R               |
| 61R  | Diagnostic Radiologist      | 14,300                        |
| 61U  | Pathologist                 | 19,000                        |
| 61W  | Peripheral Vascular Surgeon | 207,500                       |
| 61Z  | Neurosurgeon                | 42,900                        |
| 62A  | Emergency Medicine          | 8,900                         |
| 62B  | Field Surgeon (GP)          | 10,800                        |
| 600A | Phys Asst                   | Substitute for 61H/62B        |
| 00B  | General Officer             | Promoted from MD/DO           |

Notes: 60J is population specific ratio for 2,300 age 18 and older women supported.

60P is population specific ratio for 3,000 less than age 18 population supported.

61E from within the pool of 61Fs; 61Q from within the pool of 61Rs.

PA constrained by one physician supervisor per 2 PAs, and substitute 2 per 61H or 62B.

Table 4.2  
TOTAL HEALTH CARE DELIVERY PHYSICIAN REQUIREMENTS

| AOC          | Population to Physician Ratio | Total Physician Requirement |
|--------------|-------------------------------|-----------------------------|
| 60A          | 16,600                        | 163                         |
| 60B          | 118,800                       | 23                          |
| 60C          | 33,900                        | 80                          |
| 60D          | 96,700                        | 28                          |
| 60F          | 45,100                        | 60                          |
| 60G          | 39,700                        | 68                          |
| 60H          | 27,100                        | 100                         |
| 60J          | 2,300                         | 345                         |
| 60K          | 24,200                        | 112                         |
| 60L          | 54,200                        | 50                          |
| 60M          | 71,300                        | 38                          |
| 60N          | 12,200                        | 222                         |
| 60P          | 3,000                         | 289                         |
| 60Q          | 151,600                       | 18                          |
| 60R          | 80,000                        | 34                          |
| 60S          | 16,800                        | 161                         |
| 60T          | 31,700                        | 85                          |
| 60U          | 24,200                        | 112                         |
| 60V          | 20,400                        | 133                         |
| 60W          | 8,400                         | 322                         |
| 61A          | 103,600                       | 26                          |
| 61B          | 53,100                        | 51                          |
| 61C          | 130,500                       | 21                          |
| 61D          | 129,000                       | 21                          |
| 61E          | From within 61F               | 5                           |
| 61F          | 6,200                         | 437                         |
| 61G          | 138,600                       | 20                          |
| 61H          | 2,800                         | 967                         |
| 61J          | 14,800                        | 183                         |
| 61K          | 86,700                        | 31                          |
| 61L          | 40,900                        | 66                          |
| 61M          | 14,600                        | 185                         |
| 61N          | 22,600                        | 120                         |
| 61P          | 104,800                       | 26                          |
| 61Q          | From within 61R               | 17                          |
| 61R          | 14,300                        | 189                         |
| 61U          | 19,000                        | 143                         |
| 61W          | 207,500                       | 13                          |
| 61Z          | 42,900                        | 63                          |
| 62A          | 8,900                         | 304                         |
| 62B          | 10,800                        | 251                         |
| 600A         | Substitute for 61H/62B        | N/A                         |
| 00B          | Promoted from all AOCs        | N/A                         |
| <b>TOTAL</b> |                               | <b>5582</b>                 |

was due almost entirely to population demographics (e.g., an older or younger population than "normal"). Given the broad academic research and thorough community review of these ratios, The Surgeon General now has a vehicle to objectively defend to The Army Staff, The Department of Defense, and Congress the number of physicians required to deliver health care to the eligible beneficiary population. Table 4.2 portrays, by clinical specialty, the number of physicians required to support 2.7 million medical beneficiaries. Note that the number of physicians required to support the defined population does not need to be comprised of only active-duty physicians.

Keeping in mind that Health Care Delivery is not the only function of the AMEDD, this paper will later address subordinate health care delivery functions and the other two major mission areas, Readiness and GME, using yet another model, The Requirements Driven, Zero-Based Model. The entire reason the MCO model was introduced first was to establish a baseline of required physician staffing for performance of the perennially most visible mission, Health Care Delivery.

#### **READINESS**

Since a large number, about 700,000, of the 2.7 million beneficiaries are active-duty military, it is not necessary to have a separate team of physicians for Army contingencies in addition to the Health Care Delivery function. Rather, the portion of physicians who will deploy to support Army contingencies must be active-duty physicians but can be a subset (the intersection, if you will, of the Venn Diagram presented in Section 3) of the Health Care Delivery mission. Physicians required to staff field hospitals and medical teams can work in the peacetime mission until and unless they are needed for the Readiness function. Based on a process called Total Army Analysis (TAA) projecting for Fiscal Year (FY) 1996 and beyond, "field unit" requirements can be and have been identified. Table 4.3 articulates this Readiness requirement data and compares it to (peacetime) Health Care Delivery requirement data. Clearly, all specialties required for the Wartime

Table 4.3  
TAA REQUIREMENTS COMPARED TO TOTAL REQUIREMENTS

| AOC          | Population Supported      | Total Requirement | TAA Requirement |
|--------------|---------------------------|-------------------|-----------------|
| 60A          | 16,600                    | 163               | 55              |
| 60B          | 118,800                   | 23                | 3               |
| 60C          | 33,900                    | 80                | 38              |
| 60D          | 96,700                    | 28                | 0               |
| 60F          | 45,100                    | 60                | 0               |
| 60G          | 39,700                    | 68                | 0               |
| 60H          | 27,100                    | 100               | 0               |
| 60J          | 2,300                     | 345               | 24              |
| 60K          | 24,200                    | 112               | 14              |
| 60L          | 54,200                    | 50                | 6               |
| 60M          | 71,300                    | 38                | 0               |
| 60N          | 12,200                    | 222               | 59              |
| 60P          | 3,000                     | 289               | 0               |
| 60Q          | 151,600                   | 18                | 0               |
| 60R          | 80,000                    | 34                | 0               |
| 60S          | 16,800                    | 161               | 12              |
| 60T          | 31,700                    | 85                | 18              |
| 60U          | 24,200                    | 112               | 0               |
| 60V          | 20,400                    | 133               | 7               |
| 60W          | 8,400                     | 322               | 89              |
| 61A          | 103,600                   | 26                | 2               |
| 61B          | 53,100                    | 51                | 0               |
| 61C          | 130,500                   | 21                | 0               |
| 61D          | 129,000                   | 21                | 0               |
| 61E          | From within 61F           | 5                 | 0               |
| 61F          | 6,200                     | 437               | 99              |
| 61G          | 138,600                   | 20                | 9               |
| 61H          | 2,800                     | 967               | 179             |
| 61J          | 14,800                    | 183               | 176             |
| 61K          | 86,700                    | 31                | 14              |
| 61L          | 40,900                    | 66                | 4               |
| 61M          | 14,600                    | 185               | 104             |
| 61N          | 22,600                    | 120               | 109             |
| 61P          | 104,800                   | 26                | 0               |
| 61Q          | From within 61R           | 17                | 0               |
| 61R          | 14,300                    | 189               | 38              |
| 61U          | 19,000                    | 143               | 6               |
| 61W          | 207,500                   | 13                | 0               |
| 61Z          | 42,900                    | 63                | 6               |
| 62A          | 8,900                     | 304               | 94              |
| 62B          | 10,800                    | 251               | 455             |
| 600A         | Substitute for<br>61H/62B | N/A               |                 |
| 00B          | Promoted from<br>all AOCs | N/A               |                 |
| <b>TOTAL</b> |                           | <b>5582</b>       | <b>1620</b>     |

function can be provided from the peacetime requirements except for 62B, Field Surgeon. Since Field Surgeon is the military equivalent of a General Practitioner, it follows that more highly trained specialties can be substituted to cover wartime requirements. By staffing for peace, we can readily modify for war.

For rightsizing, therefore, the two most principal missions can be accommodated by staffing for peacetime requirements using the MCO methodology. In fact, we could **choose** to have relatively few active duty physicians. However, before concluding that the TAA 1999 requirements are all of the active-duty requirements "The Requirements Driven, Zero-Based Model" will be introduced. This model was developed by the AMEDD Personnel Propriety Division at Fort Sam Houston, Texas, under the leadership of BG(P) Ron Blanck, Chief of the Army Medical Corps. It includes **8 pillars**, of which **TAA requirements** is only the first. Let us review the others: **Forward Deployed, Special Staff, R&D, Continuity, Nation Building, GME, and Cost Effective**. Table 4.4 tabulates the requirements by AOC specialty.

**Forward Deployed** requirements are also a subset of the Peacetime Health Care Delivery system. In short, these are special "peacetime" requirements in overseas or forward presence locations. These are physician requirements in Europe and Korea involved predominantly in peacetime health care delivery at overseas locations caring for active-duty personnel and their family members. These particular positions are required during times of peace and in times of war. Physicians in these positions could not be made available for deployment to a combat zone without jeopardizing their primary function as a forward-deployed medical presence.

**Special Staff** describes the staff functions that are not involved in health care delivery. This function has been assigned to the Readiness Mission area because it deals with (Army) management, not Health Care Delivery. These functions are spread across many Army Commands. There are physicians in executive and leadership roles at all major Army commands (e.g., FORSCOM, HSC, OTSG, Southern Command, Special

Table 4.4  
ZERO-BASED REQUIREMENTS

| AOC          | MCO  | TAA  | Fwd D | Staff | R&D | Cont. | NB | Sub-Tot |
|--------------|------|------|-------|-------|-----|-------|----|---------|
| 60A          | 163  | 55   | 18    | 27    | 6   | 75    | 0  | 181     |
| 60B          | 23   | 3    | 2     | 1     | 0   | 3     | 0  | 9       |
| 60C          | 80   | 38   | 7     | 16    | 7   | 17    | 0  | 85      |
| 60D          | 28   | 0    | 1     | 8     | 2   | 1     | 0  | 12      |
| 60F          | 60   | 0    | 3     | 0     | 0   | 4     | 0  | 7       |
| 60G          | 68   | 0    | 1     | 0     | 1   | 5     | 0  | 7       |
| 60H          | 100  | 0    | 3     | 1     | 1   | 3     | 0  | 8       |
| 60J          | 345  | 24   | 27    | 1     | 0   | 9     | 1  | 62      |
| 60K          | 112  | 14   | 2     | 1     | 0   | 4     | 0  | 21      |
| 60L          | 50   | 6    | 3     | 0     | 2   | 3     | 0  | 14      |
| 60M          | 38   | 0    | 3     | 0     | 0   | 2     | 0  | 5       |
| 60N          | 222  | 59   | 3     | 0     | 1   | 6     | 1  | 70      |
| 60P          | 289  | 0    | 43    | 4     | 2   | 16    | 2  | 67      |
| 60Q          | 18   | 0    | 1     | 0     | 0   | 0     | 0  | 1       |
| 60R          | 34   | 0    | 0     | 0     | 0   | 1     | 0  | 1       |
| 60S          | 161  | 12   | 1     | 0     | 0   | 4     | 0  | 17      |
| 60T          | 85   | 18   | 3     | 0     | 0   | 5     | 0  | 26      |
| 60U          | 112  | 0    | 6     | 0     | 0   | 3     | 0  | 9       |
| 60V          | 133  | 7    | 5     | 1     | 2   | 4     | 0  | 19      |
| 60W          | 322  | 89   | 18    | 5     | 4   | 9     | 0  | 125     |
| 61A          | 26   | 2    | 1     | 0     | 2   | 2     | 0  | 7       |
| 61B          | 51   | 0    | 1     | 0     | 0   | 4     | 0  | 5       |
| 61C          | 21   | 0    | 1     | 0     | 2   | 4     | 0  | 7       |
| 61D          | 21   | 0    | 0     | 0     | 0   | 3     | 0  | 3       |
| 61E          | 5    | 0    | 0     | 2     | 4   | 0     | 0  | 6       |
| 61F          | 437  | 99   | 8     | 10    | 42  | 25    | 2  | 186     |
| 61G          | 20   | 9    | 0     | 1     | 11  | 4     | 0  | 25      |
| 61H          | 967  | 179  | 75    | 10    | 1   | 12    | 7  | 284     |
| 61J          | 183  | 176  | 7     | 12    | 15  | 11    | 5  | 226     |
| 61K          | 31   | 14   | 0     | 0     | 0   | 2     | 0  | 16      |
| 61L          | 66   | 4    | 1     | 0     | 0   | 3     | 1  | 9       |
| 61M          | 185  | 104  | 4     | 0     | 0   | 8     | 3  | 119     |
| 61N          | 120  | 109  | 3     | 15    | 8   | 1     | 0  | 136     |
| 61P          | 26   | 0    | 0     | 0     | 0   | 1     | 0  | 1       |
| 61Q          | 17   | 0    | 0     | 0     | 0   | 1     | 0  | 1       |
| 61R          | 189  | 38   | 7     | 1     | 0   | 10    | 0  | 56      |
| 61U          | 143  | 6    | 15    | 16    | 4   | 9     | 0  | 50      |
| 61W          | 13   | 0    | 0     | 0     | 0   | 1     | 0  | 1       |
| 61Z          | 63   | 6    | 3     | 0     | 0   | 2     | 0  | 11      |
| 62A          | 304  | 94   | 2     | 1     | 0   | 11    | 0  | 108     |
| 62B          | 251  | 455  | 11    | 1     | 3   | 9     | 2  | 481     |
| 600A         | N/A  |      |       |       |     |       |    |         |
| 00B          | N/A  |      |       |       |     |       |    |         |
| <b>TOTAL</b> | 5582 | 1620 | 289   | 134   | 120 | 297   | 24 | 2484    |

Operations Command, Recruiting Command, TRADOC, and others. This is one area for which present manpower staffing methodologies are appropriate to identify personnel requirements.

**Research and Development (R&D)** -- the fourth pillar of a Requirements Driven, Zero-Based AMEDD -- requirements are also appropriately prescribed by the Army Manpower Staffing System, except that they are somewhat dynamic depending on research projects being performed. For example, the Army currently has nearly twice as many Infectious Disease Physicians as would be recommended by the MCO model. A careful review of where they are employed would reveal, however, that there is not an excess number of Infectious Disease physicians in the Army. Rather, half of them are gainfully employed in Medical Research. Specifically, they are investigating possible vaccines against the HIV or AIDS virus. In the Venn Diagram, R&D has been placed in the GME mission area.

**Continuity** requirements are a subset of the Health Care Delivery mission. There is one important fact about this kind of requirement that requires its inclusion in a Zero-Based methodology. These positions are required in war and in peace but must be considered "sacred" against deployment (direct support of a war effort). These positions are the MTF commanders and chiefs of the medical staffs. These positions also include the Teaching Chiefs who cannot be deployed without jeopardizing the accreditation of the various training programs.

**Nation Building** is the sixth pillar of the Zero-Based Model. Simply stated, if the Army wishes to support victims of Hurricane Andrew, to maintain a medical task force in Honduras in support of that nation's development, or to perform any other non-war and (non-traditional) non-health care delivery mission, it must be resourced accordingly. Otherwise, the health care delivery mission would be impaired every time the AMEDD undertook a disaster relief or nation-building mission.

The last two pillars of the Zero-Based model are **GME** and **Cost Effectiveness**. They are more difficult to define and more subjective to evaluate. GME must be calculated last, since it is a dependent variable in the equation of required physician staffing. GME must be of an appropriate size to fill and maintain the desired inventory of active-duty physicians as defined by the other seven pillars. This means that once a "final" desired inventory of fully trained active-duty physicians has been determined, GME levels must be determined as a function of retention or loss rate by specialty. The GME discussion in the final part of this section of the paper will further develop the concept of GME being a dependent variable of the desired inventory of fully trained physicians.

Obviously, **cost effective** arguments can be made whenever an active-duty physician man-year can be calculated to be less expensive than some other flavor of provider. Figure 4.5 lists 1991 AMA-reported, national-average net income data for each of the physician specialties compared to estimates of the annual active-duty cost per physician specialty. Although cost-effectiveness goes beyond the scope of this paper except, many aspects of this concept must be thoroughly evaluated before trying to articulate the cost-effective component of the active-duty physician inventory. Some of the particular issues that need to be resolved include the following:

- Establishing a methodology for "trading" physicians for less expensive physician extenders so long as supervisory and other constraints can be met. These extenders include but are not limited to nurse practitioners, physician assistants, certified registered nurse anesthetists (CRNAs), podiatrists, physical therapists, psychologists, social workers, and optometrists.
- Reconciling the (Army Established) active-duty physician budgeted end strength (BES) of 4863 with the total physician requirement of 7475 (including an estimated 1600 physicians in GME).

Table 4.5  
CIVILIAN TO MILITARY PAY COMPARISON

| AOC | Specialty                   | AMA       | Military  |
|-----|-----------------------------|-----------|-----------|
| 60A | Executive Medicine Officer  | See Below | See Below |
| 60B | Nuclear Medicine            | \$210,500 | \$137,500 |
| 60C | Preventive Medicine         | \$95,900  | \$99,500  |
| 60D | Occupational Health         | \$95,900  | \$99,500  |
| 60F | Pulmonary Disease Officer   | \$164,200 | \$125,500 |
| 60G | Gastroenterologist          | \$164,200 | \$125,500 |
| 60H | Cardiologist                | \$233,500 | \$137,500 |
| 60J | Ob/Gyn                      | \$194,300 | \$131,500 |
| 60K | Urologist                   | \$216,500 | \$137,500 |
| 60L | Dermatologist               | \$164,200 | \$131,500 |
| 60M | Allergist                   | \$164,200 | \$125,500 |
| 60N | Anesthesiologist            | \$185,800 | \$127,500 |
| 60P | Pediatrician                | \$104,700 | \$100,500 |
| 60Q | Pediatric Cardiologist      | \$233,500 | \$137,500 |
| 60R | Child Neurologist           | \$111,700 | \$107,500 |
| 60S | Ophthalmologist             | \$224,400 | \$137,500 |
| 60T | Otorhinolaryngologist (ENT) | \$206,300 | \$133,500 |
| 60U | Child Psychiatrist          | \$111,700 | \$111,500 |
| 60V | Neurologist                 | \$111,700 | \$107,500 |
| 60W | Psychiatrist                | \$111,700 | \$111,500 |
| 61A | Nephrologist                | \$164,200 | \$125,500 |
| 61B | Medical Oncologist          | \$164,200 | \$125,500 |
| 61C | Endocrinologist             | \$164,200 | \$125,500 |
| 61D | Rheumatologist              | \$164,200 | \$125,500 |
| 61E | Clinical Pharmacologist     | \$164,200 | \$125,500 |
| 61F | Internal Medicine           | \$125,300 | \$112,500 |
| 61G | Infectious Disease Officer  | \$164,200 | \$125,500 |
| 61H | Family Physician            | \$95,900  | \$99,500  |
| 61J | General Surgeon             | \$187,900 | \$127,500 |
| 61K | Thoracic Surgeon            | \$250,200 | \$137,500 |
| 61L | Plastic Surgeon             | \$250,200 | \$137,500 |
| 61M | Orthopedic Surgeon          | \$259,900 | \$137,500 |
| 61N | Flight Surgeon              | \$95,900  | \$99,500  |
| 61P | Physical Medicine           | \$95,900  | \$99,500  |
| 61Q | Therapeutic Radiologist     | \$210,500 | \$137,500 |
| 61R | Diagnostic Radiologist      | \$210,500 | \$137,500 |
| 61U | Pathologist                 | \$154,500 | \$120,500 |
| 61W | Peripheral Vascular Surgeon | \$250,200 | \$137,500 |
| 61Z | Neurosurgeon                | \$250,200 | \$137,500 |
| 62A | Emergency Medicine          | \$135,200 | \$121,500 |
| 62B | Field Surgeon (GP)          | \$95,900  | \$99,500  |

Notes: AMA Net Income data is from Physician Market Place Statistics, 1991, published by the AMA. One flaw is that the AMA tends to group physician specialties (e.g., Internal Medicine Subspecialties or Surgical Subspecialties), therefore, their data is not as defined as it could be.

Military Pay Data is an average Major through Colonel with associated allowances and bonuses.

- Defining the "Do-able". For example, while 345 OB/GYN physicians are needed to support 2.7 million beneficiaries, the present system has only provided an inventory of 192. This inventory is at dynamic equilibrium; about as many OB/GYNs leave the Army each year as graduate from training programs. It is not "Do-able" to raise the inventory to 345, given present retention and training capabilities.

For the sake of concluding this "rightsizing" discussion, the following straw man proposal is offered. The first six pillars of the Requirements Driven, Zero-Based model can be combined into a single model, as was depicted in Table 4.4. As a "What If" drill, it is suggested that GME be afforded up to 1600 positions. This permits the assertion that 759 cost-effective billets can be afforded to the AMEDD in order to remain within the presently allowed BES of 4863. Review again the Venn Diagram from Section 3, now with numbers added.

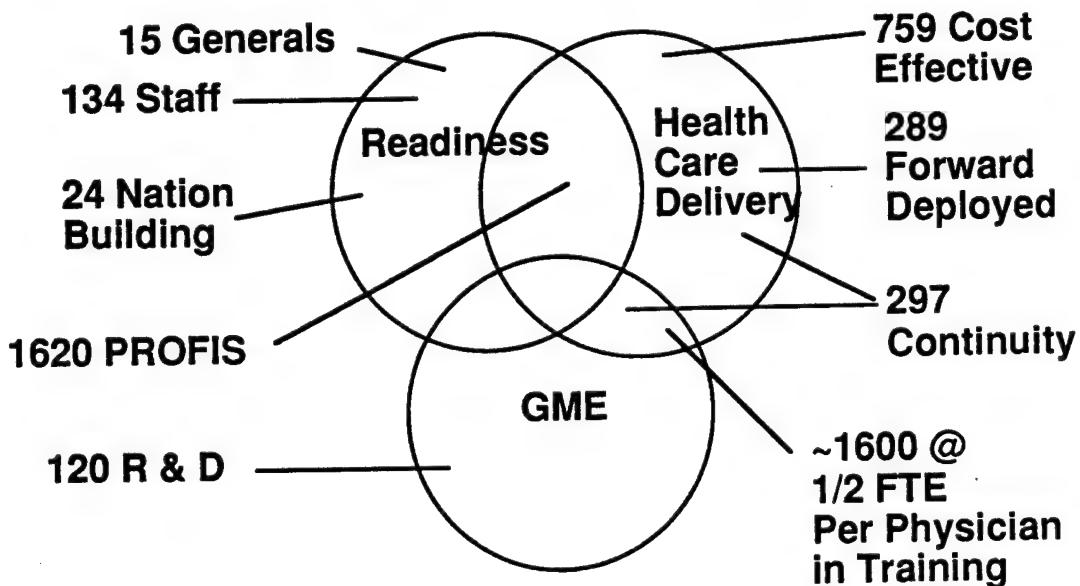


Fig. 4.1—AMEDD Missions with 4863 BES

The MCO prescribed requirement for physicians to deliver (peacetime) health care was 5582. However, this Health Care Delivery number from the Venn Diagram includes the (1620) PROFIS function, (289) Forward Deployed, (297) Continuity, (759) from the (straw man) cost-

effective function, and the (800 FTE) productivity of (1600) GME. For the purposes of the MCO model, physicians in GME are considered to be .5 equivalents of a fully trained physicians; therefore, 1600 physicians in training equal 800 full time equivalents (FTEs). Thus, the Health Care Delivery mission depicted in the Rightsizing model is 3765. The Health Care Delivery mission, therefore, has a shortfall of 1817 (5582-3765). Consequently, these physician man-years will have to be provided by CHAMPUS or one of the other flavors of providers described in Section 2 of this paper, unless the Army can increase the BES adequately to allow full military staffing, and the AMEDD can recruit/train and retain the desired physician inventory by specialty.

Readiness "pure" (178) and GME ( $R&D=120 + \text{half the value of } 1600$  physicians in training) requirements were presented as presently prescribed by military manpower staffing standards. Total Readiness and GME (1098) added to Health Care Delivery (3765) yields a total of 4863, the present budgeted end strength. Thus, the "Rightsizing" model or methodology affords objective definition to the AMEDD's requirement to reduce in size from 5537 to 4863, except that GME has not yet been discussed.

#### **GRADUATE MEDICAL EDUCATION**

Physicians required to deliver health care can be recruited. In fact, about 100 fully trained physicians join the Army voluntarily each year. However, given that about 535 to 540 physicians leave the Army each year, it is necessary to "produce" physicians through Army sponsored GME. Consider the flow diagram shown in Figure 4.2.

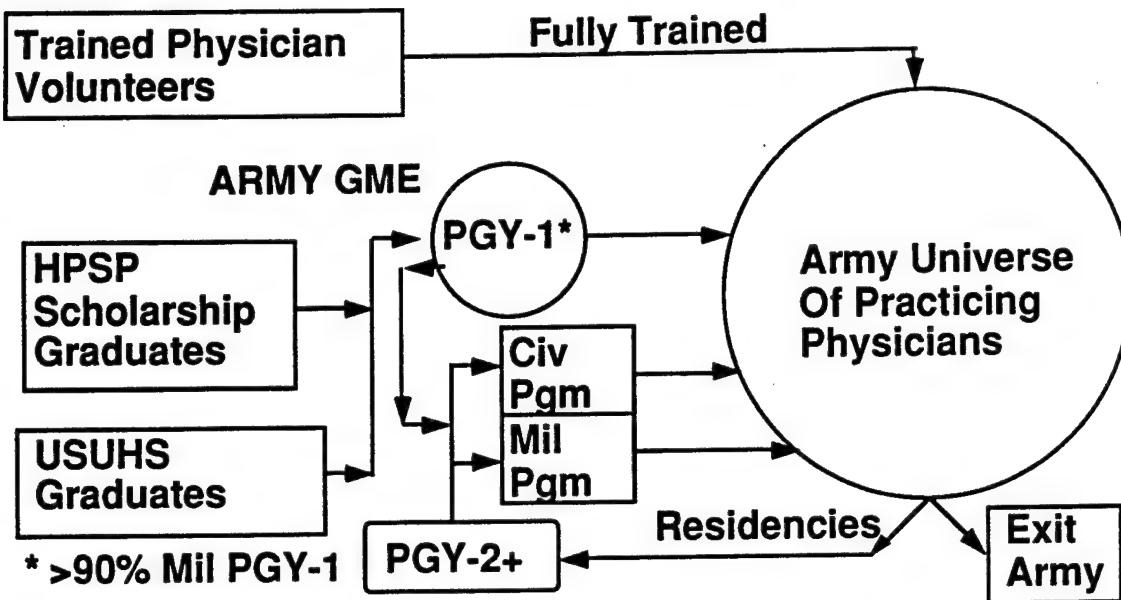


Fig. 4.2—Army Physicians Come From GME

Once AMEDD Leadership specifies the quantity and mix of physicians desired in the Army, GME acts as the source of that desired inventory by training them (except for the few volunteers each year). By viewing this process as a system, it is possible to also consider adjusting the flows, from year to year, by specialty. For example, if we don't lose as many surgeons in a given year as usual, we can reduce, at the margins, the number of training starts in surgery for the following year. GME is a system that requires feedback and adjustment on a continuing basis. The "art" in operating the GME system is the ability to predict the future. Training programs include:

- Internships (First Post Graduate Year (PGY-1));
- Residencies (ranging in length from 2 to 6 years, depending on specialty);
- Fellowships (usually 2 years in length and after a completed residency in a related field).

Additional definitions are required for the acronyms indicated in the GME flow diagram portrayed above.

Health Professions Scholarship Program (HPSP) graduates come in two types. Delay graduates are young graduating (military scholarship supported) physicians permitted to defer coming on active duty while they do their internship and residency in a civilian training program. They do not count against Army end strength until they "join" after they are fully trained, but they have a very low retention rate at the end of their obligation (incurred from the HPSP scholarship). Direct graduates are young graduating (military scholarship supported) physicians brought into the military for their internship and residency. They do count against Army end strength, but have a better retention rate at the end of their military obligation (incurred from the HPSP scholarship).

Uniformed Services University of Health Sciences (USUHS) is the Department of Defense Medical School. USUHS graduates have an even higher retention rate (1/3 higher) than HPSP direct program graduates, but they count against army end strength during medical school, as well as during their internship and residency.

A series of flow diagrams is provided below that shows how these physicians matriculate through the system to be trained and practice in the particular specialty they have chosen.

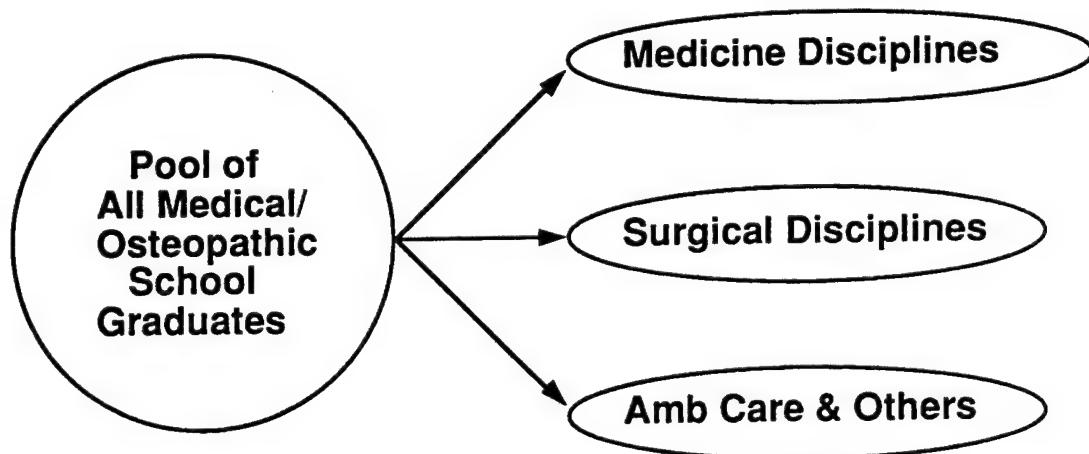


Fig. 4.3—Three Groups of Physicians

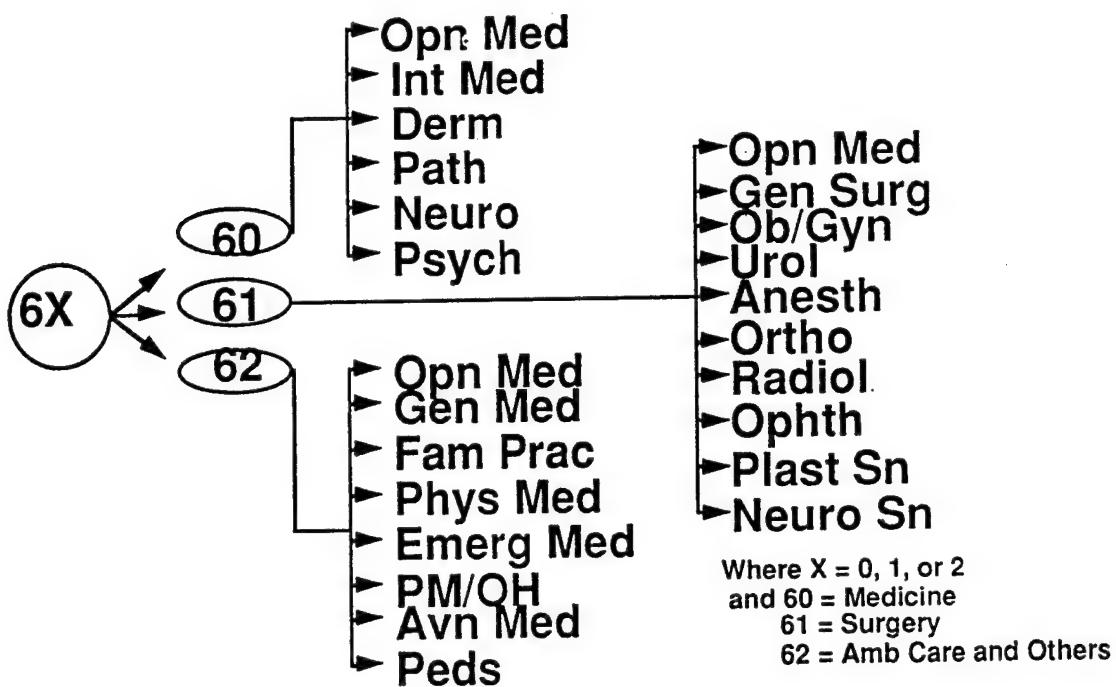


Fig. 4.4—Disciplines to Specialties

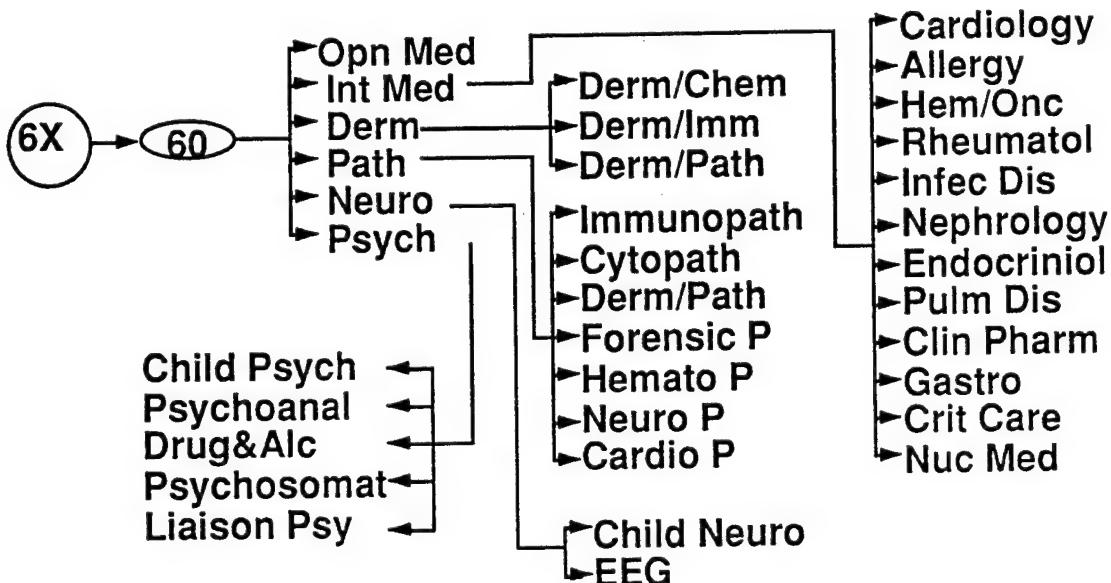


Fig.4.5—Medicine Specialties to Subspecialties

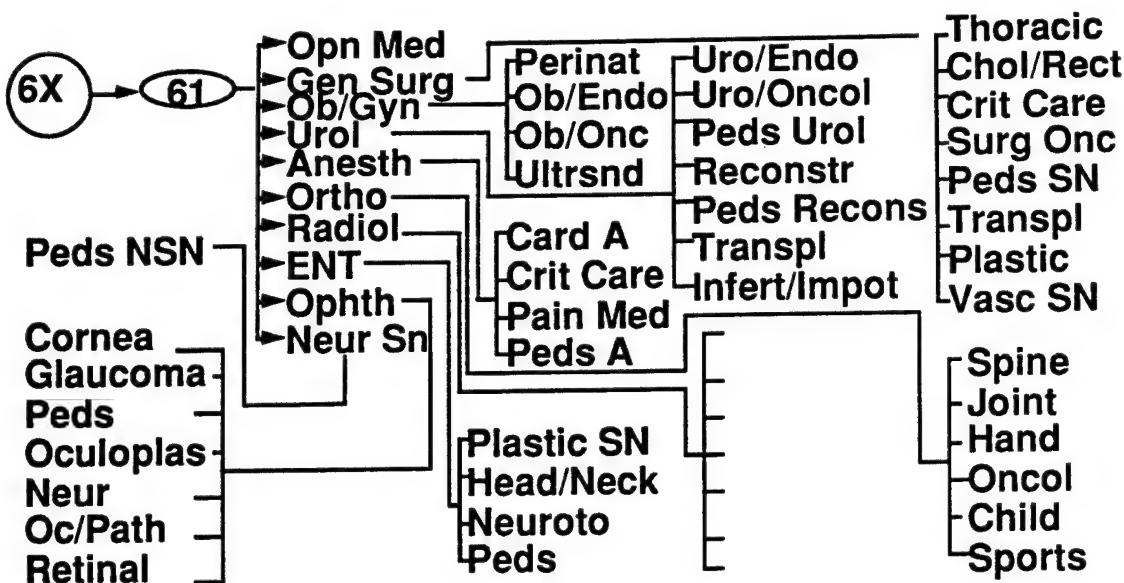


Fig. 4.6—Surgical Specialties to Subspecialties

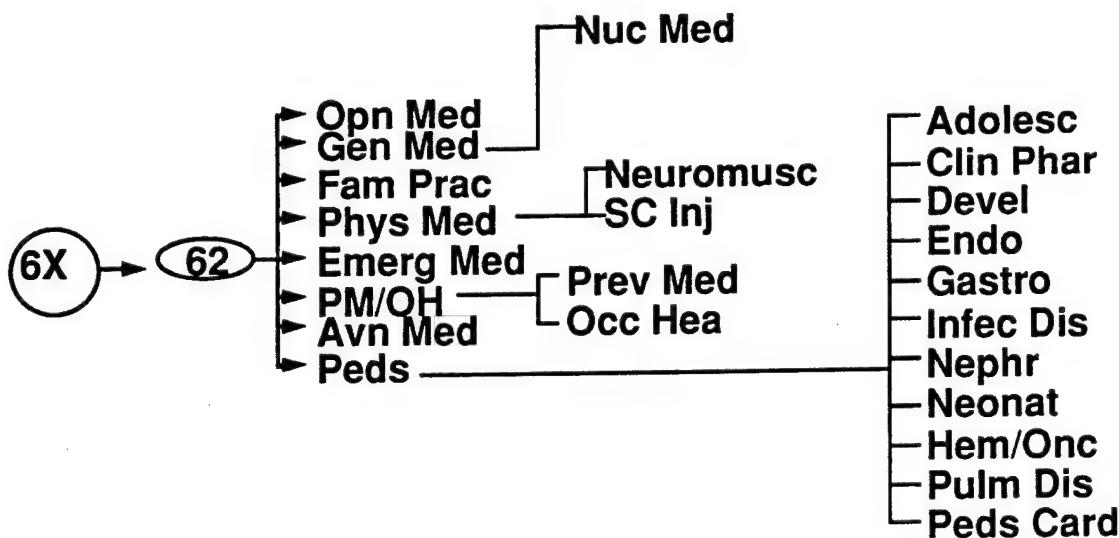


Fig. 4.7—Ambulatory Care Specialties to Subspecialties

Using the Requirements Driven, Zero-Based model to define the desired active-duty physician inventory, it is possible to then size GME. Keep in mind that desired inventory must drive GME; GME does not drive desired inventory. Though there are many complex relationships as

portrayed in Figures 4.3 - 4.7, they are definable and can be modeled mathematically. Each physician evolves through his own "life cycle," according to the pattern indicated in Figure 4.8.

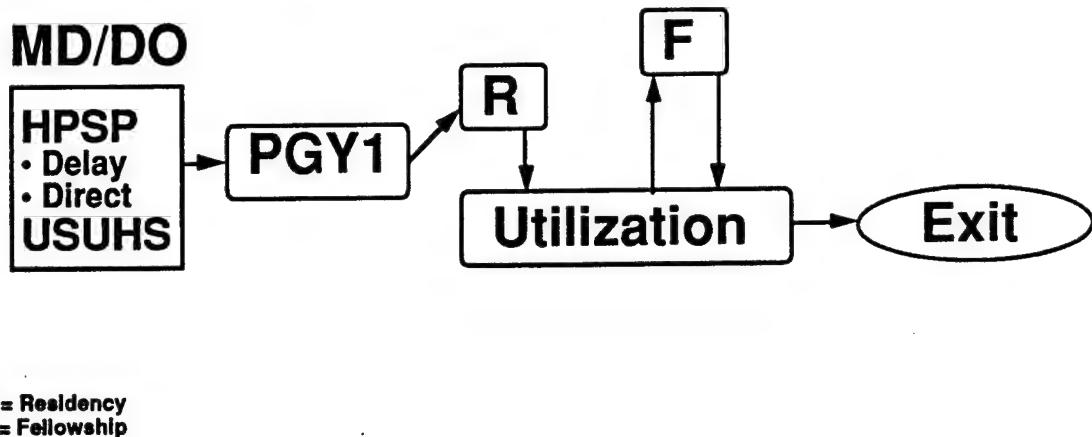


Fig. 4.8—GME Predominant Path

Consider this example. Start with 447 interns per year, of which about 100 will initially enter general practice and 347 will start directly into selected residencies; this could afford a "slice" of about 53 internal medicine residents for a three-year residency program. Following a 2-4 year utilization assignment, almost all these residents would then return for fellowship training in the subspecialty areas shown on Figure 4.5. At the end of their fellowship training, these physicians would return to a utilization tour of, again, 2-4 years. Some would then exit or leave the Army. Some would stay to be (GME) faculty for teaching programs; some would move into positions of executive leadership (directors of MTF medical Staff and/or Command); some would serve on a (MACOM) staff, and some would serve in the various other functions portrayed in the Requirements Driven, Zero Based Model.

Note this group is a single training year cohort. There is a new cohort each year. In this example, the life cycle of the cohort implies one year for the internship, three years for the residency, approximately three years in the first utilization tour, two years in fellowship training, and approximately three more years in the second

utilization tour. Total time in the cycle is, therefore, approximately twelve years.

Competent physicians starting as captains become majors after six years and advance to lieutenant colonel at twelve years. Thus, at the option point, stay in the military or exit, a physician has developed both professionally and militarily to be at the top of his or her career. Those who stay can be promoted to Colonel at eighteen years of service. Those who leave have excellent credentials in their clinical specialty to practice in the civilian health care market place. The model, therefore, shows the "pipeline" whereby we constantly rejuvenate the staffing of our health care delivery and readiness missions. It is, in fact, desirable to continuously incorporate large numbers of new, young captains into the physician structure while incrementally reducing the pool of senior physicians, keeping only the best for further advancement to be senior AMEDD leadership.

It is beyond the scope of this paper to mathematically model each of the physician specialties portrayed in Figures 4.3 through 4.7, but such modeling has been done by the Medical Corps Affairs Office of the Army Surgeon General. This modeling is important because, given the currently projected physician BES that will be authorized by the Army in 1996, at least one Medical Center will need to terminate its GME programs. Thus, the number of training starts per year to achieve and maintain the desired inventory of fully trained, active-duty physicians has been calculated. Of course, the presumption must be made that we know and can articulate the desired or prescribed inventory. That has been the thrust of this paper. The inter-relationships between Readiness, Health Care Delivery, and GME, with all of their subordinate functions, must be carefully considered in both sizing and distributing the number of physicians to be employed in the Army. Before concluding, let me emphasize, yet again, not all physicians serving the military must be active duty. The many different "flavors" portrayed in Section 2 should be fully employed and well managed.

## V. CONCLUSION AND RECOMMENDATIONS

### CONCLUSIONS

This paper portrayed how the Army, predominantly HSC, accomplishes physician distribution. What the AMEDD does with these distributed physicians was briefly discussed using both a capitation model -- the Medical Corps Optimization Model -- and a functional model -- the Requirements Driven, Zero-Based Model. A process for "Rightsizing" the structure of (active duty) physician distribution was presented in which numerous inter-relationships were discussed. Finally, it was emphasized that not all physicians serving the Army needed to be on active duty. AMEDD leadership must operate in an efficient and effective business modality to provide high-quality, accessible health care at a minimum cost while also standing ready to support military readiness and other Army contingencies.

### RECOMMENDATIONS

Only those physicians who must be on active duty or "in uniform" should be allowed, while other flavors of providers should be contracted, hired, or invited through other innovations to join the military health care delivery system. MTF commanders must deliberately assume a more proactive role in managing the health care delivery assets throughout their communities, not just within their facilities. Managing health care must always focus on ready access to high-quality health care at the lowest possible price.

A number of specific recommendations are offered:

- A capitation model, such as MCO, should be used to articulate to Army Staff, the Department of Defense, and Congress the (total) true physician staffing requirements, while emphasizing that not all staff need to be on active duty. Furthermore, the mission assignment list (MAL) should be used as a tool to assign missions as prescribed by the capitation model.
- The AMEDD must be careful, to the point of stingy, with what it allows to be declared as necessary to have on active duty.
- Given a final declared inventory of desired active-duty physicians, by specialty, GME must be sized to attain and then

maintain that inventory. (This probably will entail the elimination of at least one Teaching Medical Center, due to the reduction in AMEDD size from 5537 to 4863.)

- To facilitate active-duty physician management, as well as to streamline GME management, the AOC structure should be changed to group physicians as disciplines which then divide into specialties and further subdivide into sub-specialties. Thus AOC codes presently in use and prescribed by AR 611-101 should be modified to fit the 60, 61, and 62 grouping presented in Figure 4.4.
- The AMEDD must be willing to accept the two-sided mandate in any physician (manpower) reduction: a reduction in resources is acceptable as long as the elimination of the associated mission(s) is also accepted and clearly communicated.
- The AMEDD must immediately undertake a similar study of its other personnel requirements (e.g., nurses, nurse practitioners, and PAs) to objectively defend them with relation to the missions they support. This is even more intensely necessary given the current budget-cutting environment.
- Cross Corps/Specialty substitution and reconciliation must be accomplished, especially where it makes good business sense (e.g., pediatric nurse practitioners for pediatricians, CRNAs for anesthesiologists, PAs for General Practitioners, and so forth).
- A single personnel management system must be established that includes active-duty personnel and civilian employees, contracted personnel, partners, and all of the other "flavors" of providers. Managing these different flavors of personnel separately frustrates high-level management by permitting gaming throughout the health care delivery system. By focusing on one area, such as active-duty personnel, resources in other areas, such as DAC or contracted providers, can be consciously or subconsciously overlooked.
- GME must be managed in a cybernetic fashion. If retention in a particular specialty improves or worsens from year to year, then and only then, changes should be made in the number of training

starts for particular training programs. Obviously, these dynamic changes must also be carefully coordinated with the appropriate RRCs.

Additional GME information on Student to Faculty Ratio's

Per Dr Jim Wineladder at ACGME in a telecon with MAJ Cornell at Clin Med Div, ODCSCS, HQ HSC; ACGME has some fixed ratios at the present time. For other specialties "the ratio" is rather vaguely defined. Green Book established ratios are indicated below for those specialties that are fixed.

| <u>SPECIALTY</u>          | <u>AOC</u> | <u>STUDENT/FACULTY RATIO</u> |
|---------------------------|------------|------------------------------|
| Cardiology                | 60H        | 1.5                          |
| Dermatology               | 60L        | 3                            |
| Anesthesia                | 60N        | 2                            |
| Anesthesia Critical Care  |            | 1                            |
| Ophthalmology             | 60S        | 3                            |
| Nephrology                | 61A        | 1.33 or 2 to 1.5             |
| Rheumatology              | 61D        | 1                            |
| Family Practice           | 61H        | 6                            |
| General Surgery           | 61J        | 5 (1 per chief)              |
| General Surgery Crit Care |            | 1                            |
| Radiology Oncology        | 61Q        | 1.5                          |

GME STUDENT TO FACULTY RATIOS

| SPECIALTY  | AOC | LOCATION         | LENGTH (YRS) | SLOTS          | TOT # | FACULTY | TOT STU | TOT FAC  | STU/FAC RATIO |
|------------|-----|------------------|--------------|----------------|-------|---------|---------|----------|---------------|
| NUC MED    | 60B | WBAMC            | 2.0          | 1.0            | 2.0   | 3.0     | 8       | 11       |               |
| NUC MED    | 60B | FAMC             | 2.0          | 1.0            | 2.0   | 2.0     |         | 0.727272 |               |
| NUC MED    | 60B | BAMC             | 2.0          | 1.0            | 2.0   | 2.0     |         |          |               |
| NUC MED    | 60B | WRAMC            | 2.0          | 1.0            | 2.0   | 4.0     |         |          |               |
| PULM DIS   | 60F | WRAMC            | 3.0          | 3.0            | 9.0   | 8.0     | 27      | 19       |               |
| PULM DIS   | 60F | FAMC             | 3.0          | 2.0            | 6.0   | 4.0     |         | 1.421052 |               |
| PULM DIS   | 60F | BAMC             | 3.0          | 2.0            | 6.0   | 4.0     |         |          |               |
| PULM DIS   | 60F | MAMC             | 3.0          | 2.0            | 6.0   | 3.0     |         |          |               |
| GASTRO     | 60G | BAMC             | 2.0          | 3.0            | 6.0   | 5.0     | 18      | 15       |               |
| GASTRO     | 60G | FAMC             | 2.0          | 2.0            | 4.0   | 4.0     |         | 1.2      |               |
| GASTRO     | 60G | WRAMC            | 2.0          | 4.0            | 6.0   | 6.0     |         |          |               |
| CARDIOLOGY | 60H | BAMC             | 3.0          | 4.0            | 12.0  | 9.0     | 36      | 31       |               |
| CARDIOLOGY | 60H | FAMC             | 3.0          | 2.0            | 6.0   | 5.0     |         | 1.161290 |               |
| CARDIOLOGY | 60H | WRAMC            | 3.0          | 4.0            | 12.0  | 12.0    |         |          |               |
| CARDIOLOGY | 60H | LAMC             | 3.0          | 2.0            | 6.0   | 5.0     |         |          |               |
| GYN ENDO   | 60J | WRAMC            | 2.0          | 1.0            | 2.0   | 1.0     | 119     | 54.1     |               |
| GYN DNC    | 60J | WRAMC            | 3.0          | 2.0            | 6.0   | 3.0     |         | 2.199630 |               |
| MAT/FET ME | 60J | MAMC             | 3.0          | 1.0            | 3.0   | 0.0     |         |          |               |
| OB/GYN     | 60J | BAMC             | 4.0          | 4.0            | 16.0  | 9.0     |         |          |               |
| OB/GYN     | 60J | FAMC             | 4.0          | 4.0            | 16.0  | 7.0     |         |          |               |
| OB/GYN     | 60J | TAMC             | 4.0          | 6.0            | 24.0  | 11.0    |         |          |               |
| OB/GYN     | 60J | WBAMC            | 4.0          | 4.0            | 16.0  | 7.0     |         |          |               |
| OB/GYN     | 60J | WRAMC            | 4.0          | 4.0            | 16.0  | 8.1     |         |          |               |
| OB/GYN     | 60J | MAMC             | 4.0          | 5.0            | 20.0  | 8.0     |         |          |               |
| UROLOGY    | 60K | BAMC             | 5.0          | 1.0            | 5.0   | 3.0     | 35      | 20       |               |
| UROLOGY    | 60K | MAMC             | 5.0          | 1.0            | 5.0   | 3.0     |         | 1.75     |               |
| UROLOGY    | 60K | FAMC             | 5.0          | 1.0            | 5.0   | 3.0     |         |          |               |
| UROLOGY    | 60K | WRAMC            | 5.0          | 2.0            | 10.0  | 4.0     |         |          |               |
| UROLOGY    | 60K | TAMC             | 5.0          | 1.0            | 5.0   | 3.0     |         |          |               |
| UROLOGY    | 60K | LAMC             | 5.0          | 1.0            | 5.0   | 4.0     |         |          |               |
| DERM       | 60L | WRAMC            | 3.0          | 4.0            | 12    | 6.0     | 35      | 17       |               |
| DERM       | 60L | BAMC             | 3.0          | 5.0            | 15.0  | 6.0     |         | 2        |               |
| DERM       | 60L | FAMC             | 3.0          | 2.0            | 6.0   | 4.0     |         |          |               |
| IMMUNODERM | 60L | WRAMC            | 2.0          | 1.0            | 2.0   | 1.0     |         |          |               |
| ALLERGY    | 60M | <del>WBAMC</del> | 2.0          | <del>3.0</del> | 6.0   | 5.0     | 14      | 9        |               |
| ALLERGY    | 60M | <del>FAMC</del>  | 2.0          | <del>3.0</del> | 8.0   | 4.0     |         | 1.5      |               |
| ANESTH     | 60N | WRAMC            | 3.0          | 8.0            | 24.0  | 14.0    | 56      | 32       |               |
| ANESTH     | 60N | BAMC             | 3.0          | 8.0            | 24.0  | 11.0    |         | 2.0625   |               |
| ANESTH     | 60N | LAMC             | 3.0          | 6.0            | 18.0  | 7.0     |         |          |               |
| ADOL MED   | 60P | FAMC             | 2.0          | 1.0            | 2.0   | 2.0     | 94      | 92       |               |
| ADOL MED   | 60P | WBAMC            | 2.0          | 1.0            | 2.0   | 2.0     |         | 1.021739 |               |
| DEVEL PEDS | 60F | MAMC             | 2.0          | 1.0            | 2.0   | 2.0     |         |          |               |
| DEVEL PEDS | 60P | WBAMC            | 2.0          | 1.0            | 2.0   | 2.0     |         |          |               |
| NEONATOLOG | 60P | TAMC             | 3.0          | 1.0            | 3.0   | 3.0     |         |          |               |

|             |     |        |     |     |      |      |     |          |
|-------------|-----|--------|-----|-----|------|------|-----|----------|
| NEDNATOLOG  | 60P | WRAMC  | 3.0 | 2.0 | 6.0  | 3.0  |     |          |
| PEDS        | 60P | WRAMC  | 3.0 | 5.0 | 10.0 | 14.0 |     |          |
| PEDS        | 60P | WBAMC  | 3.0 | 4.0 | 12.0 | 12.0 |     |          |
| PEDS        | 60P | TAMC   | 3.0 | 5.0 | 16.0 | 10.0 |     |          |
| PEDS        | 60P | FAMC   | 3.0 | 4.0 | 12.0 | 12.0 |     |          |
| PEDS        | 60P | BAMC   | 3.0 | 4.0 | 12.0 | 14.0 |     |          |
| PEDS        | 60P | MAMC   | 3.0 | 4.0 | 12.0 | 14.0 |     |          |
| PEDS HEM/O  | 60P | WRAMC  | 3.0 | 1.0 | 3.0  | 2.0  |     |          |
| CHILD NEUR  | 60R | WRAMC  | 3.0 | 1.0 | 3.0  | 3.0  |     | 1        |
| OPHTHAL     | 60S | FAMC   | 3.0 | 2.0 | 6.0  | 4.0  | 33  | 21       |
| OPHTHAL     | 60S | LAMC   | 3.0 | 2.0 | 6.0  | 6.0  |     | 1.571428 |
| OPHTHAL     | 60S | WRAMC  | 3.0 | 4.0 | 12.0 | 6.0  |     |          |
| OPHTHAL     | 60S | BAMC   | 3.0 | 3.0 | 9.0  | 5.0  |     |          |
| OTO         | 60T | FAMC   | 4.0 | 1.0 | 4.0  | 3.0  | 40  | 18       |
| OTO         | 60T | BAMC   | 4.0 | 2.0 | 8.0  | 3.0  |     | 2.222222 |
| OTO         | 60T | MAMC   | 4.0 | 2.0 | 6.0  | 4.0  |     |          |
| OTO         | 60T | TAMC   | 4.0 | 2.0 | 8.0  | 4.0  |     |          |
| OTO         | 60T | WRAMC  | 4.0 | 3.0 | 12.0 | 4.0  |     |          |
| CH/ADOLPSY  | 60U | TAMC   | 2.0 | 2.0 | 4.0  | 2.0  | 16  | 20       |
| CH/ADOLPSY  | 60U | LAMC   | 2.0 | 2.0 | 4.0  | 3.0  |     | 0.8      |
| CH/ADOLPSY  | 60U | DDEAMC | 2.0 | 2.0 | 4.0  | 3.0  |     |          |
| CH/ADOLPSY  | 60U | WRAMC  | 2.0 | 2.0 | 4.0  | 12.0 |     |          |
| EEG/EMH     | 60V | WRAMC  | 1.0 | 1.0 | 1.0  | 1.0  | 30  | 12       |
| NEUR        | 60V | LAMC   | 4.0 | 2.0 | 3.0  | 5.0  |     | 2.5      |
| NEUR        | 60V | WRAMC  | 4.0 | 5.0 | 20.0 | 5.0  |     |          |
| NEUR OPHTH  | 60V | WRAMC  | 1.0 | 1.0 | 1.0  | 1.0  |     |          |
| PSYCH       | 60W | DDEAMC | 4.0 | 6.0 | 24.0 | 7.0  | 92  | 28       |
| PSYCH       | 60W | LAMC   | 4.0 | 3.0 | 12.0 | 5.0  |     | 3.285714 |
| PSYCH       | 60W | TAMC   | 4.0 | 6.0 | 24.0 | 7.0  |     |          |
| PSYCH       | 60W | WRAMC  | 4.0 | 5.0 | 32.0 | 9.0  |     |          |
| NEPHROLOGY  | 61A | BAMC   | 2.0 | 2.0 | 4.0  | 3.0  | 8   | 6        |
| NEPHROLOGY  | 61A | WRAMC  | 2.0 | 2.0 | 4.0  | 3.0  |     | 1.333333 |
| HEM/ONC     | 61B | MAMC   | 3.0 | 2.0 | 6.0  | 5.0  | 24  | 17       |
| HEM/ONC     | 61B | LAMC   | 3.0 | 2.0 | 6.0  | 5.0  |     | 1.411764 |
| HEM/ONC     | 61B | BAMC   | 3.0 | 2.0 | 6.0  | 6.0  |     |          |
| HEM/ONC     | 61B | WRAMC  | 3.0 | 2.0 | 6.0  | 1.0  |     |          |
| ENDO        | 61C | MAMC   | 2.0 | 1.0 | 2.0  | 4.0  | 8   | 16       |
| ENDO        | 61C | WRAMC  | 2.0 | 2.0 | 4.0  | 8.0  |     | 0.5      |
| ENDO        | 61C | FAMC   | 2.0 | 1.0 | 2.0  | 4.0  |     |          |
| RHEUMATOL   | 61D | WRAMC  | 2.0 | 2.0 | 4.0  | 4.0  | 6   | 7        |
| RHEUMATOL   | 61D | FAMC   | 2.0 | 1.0 | 2.0  | 3.0  |     | 0.857142 |
| BEN INT MED | 61F | WRAMC  | 2.0 | 3.0 | 6.0  | 3.0  | 244 | 71       |
| INT MED     | 61F | DDEAMC | 3.0 | 6.0 | 18.0 | 5.0  |     | 3.436619 |
| INT MED     | 61F | FAMC   | 3.0 | 9.0 | 24.0 | 5.0  |     |          |
| INT MED     | 61F | TAMC   | 3.0 | 9.0 | 27.0 | 9.0  |     |          |

|              |     |         |     |      |      |      |     |          |
|--------------|-----|---------|-----|------|------|------|-----|----------|
| INT MED      | 61F | WRAMC   | 3.0 | 14.0 | 42.0 | 13.0 |     |          |
| INT MED      | 61F | BAMC    | 3.0 | 12.0 | 36.0 | 13.0 |     |          |
| INT MED      | 61F | LAMC    | 3.0 | 7.0  | 21.0 | 8.0  |     |          |
| INT MED      | 61F | WBAMC   | 3.0 | 9.0  | 27.0 | 6.0  |     |          |
| INT MED      | 61F | MAMC    | 3.0 | 9.0  | 27.0 | 8.0  |     |          |
| MED RESEARCH | 61F | WRAMC   | 1.0 | 4.0  | 4.0  | 0.0  |     |          |
| MED/PEDS     | 61F | WBAMC   | 4.0 | 3.0  | 12.0 | 0.0  |     |          |
| INFECT DIS   | 61G | BAMC    | 3.0 | 1.0  | 3.0  | 4.0  | 9   | 9        |
| INFECT DIS   | 61G | WRAMC   | 3.0 | 2.0  | 6.0  | 5.0  |     | 1        |
| FAM PRAC     | 61H | BELVOIR | 3.0 | 6.0  | 18.0 | 23.0 | 151 | 100      |
| FAM PRAC     | 61H | BENNING | 3.0 | 10.0 | 30.0 | 17.0 |     | 1.51     |
| FAM PRAC     | 61H | DDEAMC  | 3.0 | 10.0 | 30.0 | 16.0 |     |          |
| FAM PRAC     | 61H | BRAGG   | 3.0 | 10.0 | 30.0 | 21.0 |     |          |
| FAM PRAC     | 61H | ORD     | 3.0 | 6.0  | 18.0 | 14.0 |     |          |
| FAM PRAC     | 61H | MAMC    | 3.0 | 7.0  | 21.0 | 9.0  |     |          |
| FP SUB SP    | 61H | MAMC    | 2.0 | 2.0  | 4.0  | 0.0  |     |          |
| SURG         | 61J | WBAMC   | 5.0 | 3.0  | 18.0 | 4.0  | 147 | 39       |
| SURG         | 61J | MAMC    | 5.0 | 2.0  | 14.0 | 6.0  |     | 3.769230 |
| SURG         | 61J | BAMC    | 4.0 | 3.0  | 18.0 | 5.0  |     |          |
| SURG         | 61J | WRAMC   | 5.0 | 4.0  | 24.0 | 11.0 |     |          |
| SURG         | 61J | FAMC    | 5.0 | 2.0  | 16.0 | 4.0  |     |          |
| SURG         | 61J | LAMC    | 5.0 | 3.0  | 18.0 | 3.0  |     |          |
| SURG         | 61J | DDEAMC  | 5.0 | 3.0  | 15.0 | 2.0  |     |          |
| SURG         | 61J | TAMC    | 5.0 | 4.0  | 24.0 | 4.0  |     |          |
| THORACIC     | 61K | WRAMC   | 3.0 | 1.0  | 3.0  | 3.0  |     | 10       |
| THORACIC     | 61K | BAMC    | 3.0 | 1.0  | 3.0  | 4.0  |     | 0.9      |
| THORACIC     | 61K | LAMC    | 3.0 | 1.0  | 3.0  | 3.0  |     |          |
| PLASTIC BN   | 61L | WBAMC   | 2.0 | 1.0  | 2.0  | 2.0  |     | 9        |
| PLASTIC BN   | 61L | WRAMC   | 2.0 | 1.0  | 2.0  | 4.0  |     | 0.666666 |
| PLASTIC BN   | 61L | FAMC    | 2.0 | 1.0  | 2.0  | 3.0  |     |          |
| ORTHO/HAND   | 61M | WRAMC   | 1.0 | 2.0  | 2.0  | 1.0  | 105 | 40       |
| ORTHO/Joint  | 61M | WPOINT  | 2.0 | 1.0  | 2.0  | 3.0  |     | 2.7      |
| ORTHO        | 61M | TAMC    | 4.0 | 3.0  | 12.0 | 4.0  |     |          |
| ORTHO        | 61M | WBAMC   | 4.0 | 5.0  | 20.0 | 4.0  |     |          |
| ORTHO        | 61M | MAMC    | 4.0 | 3.0  | 12.0 | 6.0  |     |          |
| ORTHO        | 61M | BAMC    | 4.0 | 4.0  | 16.0 | 6.0  |     |          |
| ORTHO        | 61M | LAMC    | 4.0 | 3.0  | 12.0 | 4.0  |     |          |
| ORTHO        | 61M | WRAMC   | 4.0 | 3.0  | 12.0 | 3.0  |     |          |
| ORTHO        | 61M | DDEAMC  | 4.0 | 2.0  | 8.0  | 5.0  |     |          |
| ORTHO        | 61M | FAMC    | 4.0 | 3.0  | 12.0 | 4.0  |     |          |
| PHYS MED     | 61P | WRAMC   | 3.0 | 3.0  | 9.0  | 5.0  |     | 1.6      |
| RAD/CNC      | 61Q | LAMC    | 3.0 | 1.0  | 3.0  | 2.0  |     | 7        |
| RAD/CNC      | 61Q | WRAMC   | 3.0 | 1.0  | 3.0  | 5.0  |     | 0.657142 |
| ANGIOGRAPH   | 61R | FAMC    | 1.0 | 1.0  | 1.0  | 1.0  | 111 | 55.5     |
| ANGIOGRAPH   | 61R | WRAMC   | 1.0 | 1.0  | 1.0  | 1.0  |     | 2.090090 |
| IMAG/CT      | 61R | WBAMC   | 1.0 | 1.0  | 1.0  | 1.0  |     |          |
| IMAG/CT      | 61R | BAMC    | 1.0 | 1.0  | 1.0  | 1.0  |     |          |

|           |     |        |      |       |          |      |                 |          |
|-----------|-----|--------|------|-------|----------|------|-----------------|----------|
| RAD/DIAG  | 61R | MAMC   | 4.0  | 4.0   | 16.0     | 9.5  |                 |          |
| RAD/DIAG  | 61R | TAMC   | 4.0  | 4.0   | 16.0     | 9.0  |                 |          |
| RAD/DIAG  | 61R | BAMC   | 4.0  | 6.0   | 24.0     | 9.0  |                 |          |
| RAD/DIAG  | 61R | FAMC   | 4.0  | 4.0   | 16.0     | 7.0  |                 |          |
| RAD/DIAG  | 61R | WRAMC  | 4.0  | 6.0   | 24.0     | 11.0 |                 |          |
| RAD/DIAG  | 61R | LAMC   | 4.0  | 4.0   | 16.0     | 6.0  |                 |          |
| PATH      | 61U | BAMC   | 4.0  | 3.0   | 12.0     | 11.0 | 61              | 50       |
| PATH      | 61U | WFAMC  | 4.0  | 4.0   | 16.0     | 12.0 |                 | 1.22     |
| PATH      | 61U | WBAMC  | 4.0  | 2.0   | 8.0      | 7.0  |                 |          |
| PATH      | 61U | TAMC   | 4.0  | 2.0   | 8.0      | 7.0  |                 |          |
| PATH      | 61U | DDEAMC | 4.0  | 2.0   | 8.0      | 7.0  |                 |          |
| PATH      | 61U | MAMC   | 4.0  | 2.0   | 8.0      | 5.0  |                 |          |
| PATH/CYTC | 61U | BAMC   | 1.0  | 1.0   | 1.0      | 1.0  |                 |          |
| VASCULAR  | 61W | WRAMC  | 2.0  | 1.0   | 2.0      | 2.0  |                 | 1        |
| NEUR/SURG | 61Z | WRAMC  | 6.0  | 1.0   | 6.0      | 6.0  |                 | 1        |
| EMER MED  | 62A | HOOD   | 3.0  | 8.0   | 24.0     | 6.0  | 57              | 27       |
| EMER MED  | 62A | MAMC   | 3.0  | 6.0   | 12.0     | 9.0  |                 | 2.111111 |
| EMER MED  | 62A | BAMC   | 3.0  | 7.0   | 21.0     | 10.0 |                 |          |
| TRANS     | XXX | FAMC   | 1.0  | 12.0  | 12.0     | 0.0  | "HIDDEN RATIOS" |          |
| TRANS     | XXX | TAMC   | 1.0  | 15.0  | 15.0     | 0.0  |                 |          |
| TRANS     | XXX | LAMC   | 1.0  | 10.0  | 10.0     | 0.0  |                 |          |
| TRANS     | XXX | DDEAMC | 1.0  | 7.0   | 7.0      | 0.0  |                 |          |
| TRANS     | XXX | MAMC   | 1.0  | 11.0  | 11.0     | 0.0  |                 |          |
| TRANS     | XXX | BAMC   | 1.0  | 18.0  | 18.0     | 0.0  |                 |          |
| TRANS     | XXX | WRAMC  | 1.0  | 16.0  | 16.0     | 0.0  |                 |          |
|           |     |        | 1633 | 873.6 | 1.869276 |      |                 |          |

KEY TO GME STUDY MATRICES

| PAGE | COLUMN | HEADING   | DEFINITION  |
|------|--------|-----------|---|
| 1    | 1      | AOC       | STANDARD 3 DIGIT AOC AS DEFINED BY AR 611-101   |
|      | 2      | SPECIALTY | SPECIALTY TITLE (ABBREVIATED)   |
|      | 3      | FAC       | MINIMUM NUMBER OF FACULTY, OF THE INDICATED SPECIALTY, FOR THE DESIGNATED TRAINING PROGRAM (FAC "CRITICAL MASS")  |
|      | 4      | RES       | MINIMUM NUMBER OR CRITICAL MASS OF PHYSICIANS IN TRAINING FOR THE DESIGNATED TRAINING PROGRAM (INCLUDES ALL YEAR GROUPS).   |
|      | 5      | MASS      | OVERALL CRITICAL MASS MINIMUM CONSTRAINT, GENERALLY OF PHYSICIANS IN TRAINING, FOR A GIVEN TRAINING PROGRAM (THE LEAST NUMBER OF PHYSICIANS IN TRAINING AN RRC WILL ALLOW).   |
|      | 6      | ACGME     | THIS COLUMN WAS USED TO DEPICT WHETHER IT WAS TRUE OR FALSE THAT THE "GREEN BOOK" OF THE ACCREDITATION COMMITTEE ON GRADUATE MEDICAL EDUCATION HAD SPECIFIED A PHYSICIAN IN TRAINING TO FACULTY RATIO. A "0" MEANS "FALSE". A "1" MEANS "TRUE". |
|      | 7      | OFF_RATIO | THIS ABBREVIATION WAS FOR "OFFICIAL RATIO" (PHYSICIAN IN TRAINING TO FACULTY) EITHER REQUIRED BY THE ACGME OR PERCEIVED BY THE CONSULTANT TO BE REQUIRED (IN THE ABSENCE OF AN ACGME OR RRC PUBLISHED RATIO REQUIREMENT)                        |
| 8-12 | _____  | SUPSPC    | FIRST THROUGH FIFTH SUBSPECIALTY REQUIREMENTS (FOCUS ON OPHTHALMOLOGISTS; OF 6 FACULTY REQUIRED THERE MUST BE ONE OF EACH OF THE SUBSPECIALTIES INDICATED REPRESENTED ON THE FACULTY.   |

KEY TO GME STUDY MATRICES

| PAGE | COLUMN | HEADING    | DEFINITION  |
|------|--------|------------|---|
| 2    | 1      | AOC        | STANDARD 3 DIGIT AOC AS DEFINED BY AR 611-101   |
|      | 2      | SPECIALTY  | SPECIALTY TITLE (ABBREVIATED)   |
|      | 3      | OPN        | USED AS ABBREVIATION FOR 60A DUTY AOC   |
|      | 3-44   | EACH AOC   | SPECIFIED AOC TO BE COMPARED TO EACH AOC FROM THE FIRST COLUMN AND A TRUE/FALSE QUESTION ASKED: "DOES THE TRAINING PROGRAM SPECIFIED AT THE BEGINNING OF EACH ROW REQUIRE THE PRESENCE OF THE AOC'S SPECIFIED AT THE TOP OF EACH RESPECTIVE COLUMN?" A BLANK SPACE MEANS "FALSE". A "1" MEANS "TRUE". FOR EXAMPLE, (61F) INTERNAL MEDICINE REQUIRES THE PRESENCE OF CERTAIN OTHER, SYNERGISTIC SPECIALTIES IN THE TEACHING FACILITY IN ORDER TO BE ACCREDITED. THOSE SYNERGISTIC SPECIALTIES ARE: 60F, 60G, 60H, 60M, 61A, 61B, 61C, 61D, (OBVIOUSLY) 61F, AND 61G. |
| 45   |        | REF %      | THE RESPECTIVE CONSULTANT'S OPINION OF THE AMOUNT OF WORKLOAD IN A GIVEN SPECIALTY THAT SHOULD BE EXPECTED TO BE "REFERRED IN" FROM OUTSIDE 40 MILES. "BLANK" ENTRY MEANS NO OPINION STATED.  |
| 46   |        | CONSULTANT | LAST NAME OF CONSULTANT   |
| 47   |        | PHONE      | CONSULTANT PHONE NUMBER   |

PAGE

3 EXACTLY THE SAME AS PAGE 2 EXCEPT MATRIX IS SORTED BY KEYING ON RIGHT COLUMN AND BOTTOM ROW; IT IS SORTED IN ASCENDING ORDER FROM TOP TO BOTTOM AND LEFT TO RIGHT.

PAGE

4 LIST OF CONSULTANTS AND PHONE NUMBERS WHO PARTICIPATED IN THE STUDY.

| SPECIALTY |                 | MIN_NO. | MIN_CLASS | MIN_PGM | 0=N<br>RES | 1=Y<br>MASS | RES/MASS<br>ACGRN OFF | RES/FAC<br>RATIO | FAC          | REQUIRED SUBSPECIALTY TRAINING PROGRAM NEEDED FOR ACCREDITATION |
|-----------|-----------------|---------|-----------|---------|------------|-------------|-----------------------|------------------|--------------|---|
| ACG       |                 |         |           |         |            |             |                       |                  |              | FIFTH_SUBSPC  |
| 60B       | NUCLEAR MEDICIN | 3       | 2         | 2       | 0          | 2:3         |                       |                  |              |   |
| 60C       | PREV MED        | 1       | 4         | 4       | 0          | 2:1         |                       |                  |              |   |
| 60D       | OCCUPATIONAL HE | 2       | 4         | 4       | 0          | 1:1         | 1 EA 60D              | 1 EA 60C         |              |   |
| 60F       | PULMONARY       | 6       | 6         | 6       | 1          | 1:1         | CRIT CARE             |                  |              |   |
| 60G       | GASTROENTEROLO  | 2       | 2         | 2       | 0          | 1:1         |                       |                  |              |   |
| 60H       | CARDIOLOGY      | 6       | 6         | 6       | 1          | 1.6:1       | 1 INVASIVE            | 1 ECHO           | 1 EP         | REPRO/ENDOCR  |
| 60J       | OB/GYN          | 9       | 12        | 12      | 1          | 2:1         | PERINATOLOGY          | GYN/ONC          |              |   |
| 60K       | UROLOGY         | 1       | 2         | 2       | 0          | 2:1         |                       |                  |              |   |
| 60L       | DERMATOPATH     | 1       | 1         | 1       | 0          | 1:1         |                       |                  |              |   |
| 60L       | IMMUNODERM      | 1       | 1         | 1       | 0          | 1:1         |                       |                  |              |   |
| 60L       | DERM SURGERY    | 1       | 1         | 1       | 0          | 1:1         |                       |                  |              |   |
| 60L       | DERMATOLOGY     | 4       | 6         | 6       | 1          | 3:1         | DERMATOPATH           | DERM SURG        | IMMUNODERM   |   |
| 60M       | ALLERGY         | 6       | 6         | 6       | 0          | 1.3:1       |                       |                  |              |   |
| 60N       | ANESTHESIOLOGY  | 9       | 18        | 18      | 1          | 2:1         |                       |                  |              |   |
| 60P       | PEDIATRICS      | 12      | 12        | 12      | 0          | 1.3:1       | ADOL MED              | CC               | DEVEL PEDS   | NEONATOLOGY   |
| 60P       | DEVEL PEDS      | 2       | 1         | 1       | 0          | 1.5:1       |                       |                  |              |   |
| 60P       | ADOLESCENT MED  | 2       | 2         | 2       | 0          | 1:1         |                       |                  |              |   |
| 60PDX     | NEONATAL-PERINA | 6       | 3         | 3       | 0          | 1:2         |                       |                  |              |   |
| 60Q       | PEDIATRIC CARDI | 4       | 12        | 12      | 0          | 3:1         |                       |                  |              |   |
| 60R       | PED NEUROLOGY   | 3       | 2         | 3       | 0          | 1:1         | NEUROLOGY             | EEG/EMG          |              |   |
| 60S       | OPHTHALMOLOGY   | 6       | 10        | 6       | 1          | 3:1         | GLAUCOMA              | CORNEA           | RETINA       | OCULOPLASTIC  |
| 60T       | ENT             | 4       | 4         | 4       | 0          | 1:1         | HEAD & NECK           | OTOLGY           | PED OTOLAR   | NEURO-OPTH  |
| 60U       | CHILD PSYCH     | 3       | 2         | 2       | 0          | 1:1         |                       |                  |              |   |
| 60V       | NEUROLOGY       | 6       | 9         | 6       | 0          | 1.6:1       | CHILD NEURO           | EEG/EMG          |              |   |
| 60W       | PSYCHIATRY      | 7       | 4         | 7       | 0          | 2.4:1       | CHILD PSYCH           | FORENSIC PSY     | COMM/LIAISON | PSYCHOANALYSIS  |
| 61A       | NEPHROLOGY      | 6       | 6         | 6       | 1          | 2:1.5       |                       |                  |              | ALC/DRUG PSYCH  |
| 61B       | MEDICAL ONCOLG  | 4       | 4         | 4       | 0          | 1:1         | ANESTH CCM            | SURG CCM         | MEDICAL CCM  |   |
| 61B       | CRITICAL CARE   | 4       | 2         | 2       | 1          | 1:1         |                       |                  |              |   |
| 61C       | ENDOCRINOLOGY   | 3       | 2         | 1       | 0          | 1:2         |                       |                  |              |   |
| 61D       | RHEUMATOLOGY    | 3       | 1         | 1       | 1          | 1:1         |                       |                  |              |   |
| 61E       | CLINICAL PHARM  | 7       | 3         | 3       | 0          | 1:2         |                       |                  |              |   |
| 61F       | INTERNAL MED    | 4       | 8         | 12      | 0          | 2:1         |                       |                  |              |   |
| 61G       | INFEC DISEASE   | 6       | 6         | 6       | 0          | 1:1         |                       |                  |              |   |
| 61H       | Family Practice | 4       | 10        | 12      | 1          | 3:1         | GERIATRICS            |                  |              |   |
| 61J       | GENERAL SURGER  | 6       | 20        | 2       | 0          | 4:1         | COLONRECTAL           | SURG/ONC         | SURG CRIT CA | PEDS SURGERY  |
| 61K       | THORACIC SURGER | 4       | 2         | 2       | 0          | 2:1         |                       |                  |              |   |
| 61L       | PLASTIC SURGERY | 3       | 1         | 1       | 0          | 1:1.6       |                       |                  |              |   |
| 61M       | ORTHO FELLOW    | 2       | 1         | 1       | 0          | 2:1         | HAND SURGERY          | PEDIATRIC ORTHO  | SPINE SURG   | ADULT RECONSTR  |
| 61M       | ORTHOPEDICS     | 6       | 12        | 12      | 0          | 2:1         |                       |                  |              | SOFT TISSUE/JNT   |
| 61N       | FLT SN (LONG)   | 1       | 1         | 6       | 0          | 1:1         |                       |                  |              |   |
| 61N       | FLT SN (SHORT)  | 4       | 20        | 20      | 0          | 6:1         |                       |                  |              |   |
| 61P       | PHYSIATRY       | 7       | 12        | 12      | 1          | 2:1         |                       |                  |              |   |
| 61Q       | OTHER RADIOLOGY | 3       | 6         | 6       | 0          | 1.6:1       |                       |                  |              |   |
| 61R       | DIAGNOSTIC RAD  | 10      | 16        | 16      | 0          | 1.45:1      | PED RADIOL            | INTERVEN RAD     | NEURO RAD    |   |
| 61U       | PATHOLOGY       | 6       | 6         | 6       | 0          | 1:1         | CYTOPATH              | FORENSIC PAT     | IMMUNOPATH   | HEMATOPATH  |
| 61W       | PERIVAS SN      | 3       | 2         | 2       | 0          | 1:2         |                       |                  |              |   |
| 61Z       | NEUROSURGEON    | 4       | 6         | 6       | 0          | 3:2         | NEURORADIOL           | PEDS NEUROS      | SPINE FELLOW | GAMMA KNIFE   |
| 62A       | EMERGENCY MED   | 8       | 24        | 8       | 0          | 3:1         | EMS                   |                  | TOXICOLOGY   | RESEARCH  |
| 62B       | FIELD SURGEON   | 6       | 4         | 4       | 1          | 6:1         |                       |                  |              |   |
| 600A      | PHYS ASST       | 1       | 1         | 0       | 1          | 1:1         | SPONS PHYS            |                  |              |   |

**MATRIX SHOWING RELATIONSHIP BETWEEN GME PROGRAM AND ASSOCIATED SPECIALTIES NEEDED FOR ACCREDITATION**

INDICATES THE SPECIAL REQUIREMENTS FOR ACCOMMODATION OF THE ADDITIONAL

**MATRIX SHOWING RELATIONSHIP BETWEEN GME PROGRAM AND ASSOCIATED SPECIALTIES NEEDED FOR ACCREDITATION**

• INDICATES A SPECIALTY PROGRAM REQUIRED FOR ACCREDITATION OF ONE PROGRAM

| AOC   | SPECIALTY        | CONSULTANT  | PHONE      |
|-------|------------------|-------------|------------|
| 60B   | NUCLEAR MEDICINE | BLUE        | AV943-8241 |
| 60C   | PREV MED         | EDRTMANN    | 60125      |
| 60D   | OCCUPATIONAL HEA | DEETER      | AV584-2714 |
| 60F   | PULMONARY        | PHILLIPS    | 2025761749 |
| 60G   | GASTROENTEROLOGY | WONG        | AV291-2256 |
| 60H   | CARDIOLOGY       | WORTHAM     | AV289-3838 |
| 60J   | OB/GYN           | BROADNAX    | AV780-6395 |
| 60K   | UROLOGY          | MCLEOD      | AV291-3865 |
| 60L   | DERM SURGERY     | BECKER      | AV471-4027 |
| 60L   | DERMATOPATH      | BECKER      | AV471-4027 |
| 60L   | DERMATOLOGY      | BECKER      | AV471-4027 |
| 60L   | IMMUNODERM       | BECKER      | AV471-4027 |
| 60M   | ALLERGY          | SPAULDING   | AV943-8370 |
| 60N   | ANESTHESIOLOGY   | CONDON      | AV291-1471 |
| 60P   | PEDIATRICS       | PIERCE      | AV291-1248 |
| 60P8X | NEONATAL-PERINA  | WEISMAN     | AV295-3130 |
| 60P   | DEVEL PEDS       | ATKINSON    | AV979-2561 |
| 60P   | ADOLESC MED      | SCHYNDLOWER | AV979-2233 |
| 60Q   | PEDIATRIC CARDI  | MOORE       | AV291-3835 |
| 60R   | PED NEUROLOGY    | MITCHELL    | AV291-1863 |
| 60S   | OPHTHALMOLOGY    | KRAMER      | 291-1960   |
| 60T   | ENT              | BRAMMER     | AV291-1640 |
| 60U   | CHILD PSYCH      | FAGAN       | AV289-0158 |
| 60V   | NEUROLOGY        | GUNDERSON   | 2025761510 |
| 60W   | PSYCHIATRY       | FAGAN       | AV289-0158 |
| 61A   | NEPHROLOGY       | MOORE       | AV291-1464 |
| 61B   | MEDICAL ONCOLOGY | DIEHL       | AV291-1754 |
| 61B   | CRITICAL CARE    | WHATMORE    | AV291-3891 |
| 61C   | ENDOCRINOLOGY    | BURMAN      | AV291-1793 |
| 61D   | RHEUMATOLOGY     | WEST        | AV943-3080 |
| 61E   | CLINICAL PHARM   | SCHUSTER    | AV291-5411 |
| 61F   | INTERNAL MED     | KUSSMAN     | AV289-0148 |
| 61G   | INFEC DISEASE    | OSTER       | AV291-0587 |
| 61H   | FAMILY PRACTICE  | STEINWEG    | AV289-0156 |
| 61J   | GENERAL SURGERY  | D'AVIS      | AV289-0149 |
| 61K   | THORACIC SURGERY | BARRY       | AV586-2802 |
| 61L   | PLASTIC SURGERY  | SMITH       | AV291-1564 |
| 61M   | ORTHO FELLOW     | TIPPENS     | AV780-6464 |
| 61M   | ORTHOPEDICS      | TIPPENS     | AV780-6464 |
| 61N   | FLT SN (LONG)    | JENKINS     | AV558-6955 |
| 61N9D | FLT SN (SHORT)   | JENKINS     | AV558-6955 |
| 61P   | PHYSIATRY        | BELANDRES   | AV291-1368 |
| 61Q   | THER RADIOLOGY   | DEWAN       | AV357-6706 |
| 61R   | DIAGNOSTIC RAD   | HANSEN      | AV433-6393 |
| 61U   | PATHOLOGY        | COPPIN      | AV357-6814 |
| 61W   | PERI VAS SN      | CUBELLON    | AV291-0760 |
| 61Z   | NEUROSURGEON     | BERGMAN     | AV856-4105 |
| 62A   | EMERGENCY MED    | RICE        | AV357-5079 |
| 62B   | FIELD SURGEON    | PERUGINI    | AV289-0156 |
| 600A  | PHYS ASST        | KELLER      | AV289-0141 |

| HPT          | 66C PSYCHIATRIC |      |      | 66D PEDIATRIC |      |      | 66E OPERATING ROOM |      |      | 66F NURSE ANESTHETIST |      |      | 66G OB/GYN |      |      | 66H MEDICAL/SURGICAL |      |      | 66J CLINICAL NURSE |      |      |
|--------------|-----------------|------|------|---------------|------|------|--------------------|------|------|-----------------------|------|------|------------|------|------|----------------------|------|------|--------------------|------|------|
|              | AUTH            | ASGD | AUTH | AUTH          | ASGD | AUTH | AUTH               | ASGD | AUTH | AUTH                  | ASGD | AUTH | ASGD       | AUTH | ASGD | AUTH                 | ASGD | AUTH | ASGD               | AUTH | ASGD |
| BAMC         | 7               | 2    | 25   | 16            | 21   | 22   | 9                  | 7    | 6    | 6                     | 152  | 108  | 18         | 52   |      |                      |      |      |                    |      |      |
| DDEMAC       | 16              | 13   | 12   | 10            | 11   | 14   | 11                 | 9    | 13   | 13                    | 130  | 73   | 19         | 35   |      |                      |      |      |                    |      |      |
| FAMC         | 6               | 4    | 23   | 26            | 16   | 16   | 13                 | 10   | 15   | 12                    | 113  | 81   | 11         | 39   |      |                      |      |      |                    |      |      |
| LMAC         | 9               | 7    | 7    | 9             | 15   | 16   | 6                  | 2    | 2    | 3                     | 155  | 83   | 0          | 39   |      |                      |      |      |                    |      |      |
| MAMC         | 3               | 2    | 31   | 13            | 15   | 16   | 14                 | 9    | 9    | 12                    | 69   | 61   | 19         | 24   |      |                      |      |      |                    |      |      |
| TMAC         | 11              | 8    | 39   | 22            | 30   | 26   | 24                 | 16   | 30   | 29                    | 133  | 119  | 22         | 48   |      |                      |      |      |                    |      |      |
| WRMC         | 21              | 16   | 27   | 27            | 22   | 21   | 18                 | 15   | 11   | 10                    | 210  | 160  | 49         | 79   |      |                      |      |      |                    |      |      |
| WBAMC        | 5               | 4    | 29   | 23            | 12   | 9    | 14                 | 11   | 9    | 9                     | 110  | 83   | 14         | 23   |      |                      |      |      |                    |      |      |
| BELVOIR      | 0               | 0    | 5    | 3             | 7    | 7    | 5                  | 4    | 7    | 5                     | 22   | 22   | 6          | 5    |      |                      |      |      |                    |      |      |
| BEN HARRISON | 0               | 0    | 0    | 0             | 2    | 1    | 2                  | 1    | 0    | 0                     | 0    | 8    | 6          | 0    |      |                      |      |      |                    |      |      |
| BENNING      | 3               | 3    | 3    | 3             | 6    | 6    | 6                  | 4    | 6    | 6                     | 8    | 30   | 19         | 6    | 14   |                      |      |      |                    |      |      |
| BRAGG        | 2               | 4    | 6    | 6             | 6    | 6    | 6                  | 6    | 6    | 6                     | 9    | 40   | 35         | 3    | 2    |                      |      |      |                    |      |      |
| CAMPBELL     | 2               | 3    | 7    | 6             | 4    | 4    | 4                  | 4    | 4    | 9                     | 9    | 18   | 11         | 2    | 9    |                      |      |      |                    |      |      |
| CARSON       | 0               | 0    | 6    | 5             | 6    | 8    | 4                  | 4    | 7    | 9                     | 27   | 20   | 3          | 8    |      |                      |      |      |                    |      |      |
| DEVENS       | 0               | 0    | 0    | 0             | 3    | 3    | 2                  | 2    | 0    | 0                     | 0    | 13   | 9          | 1    | 4    |                      |      |      |                    |      |      |
| DIX          | 2               | 2    | 7    | 4             | 4    | 4    | 4                  | 4    | 3    | 10                    | 1    | 28   | 31         | 1    | 7    |                      |      |      |                    |      |      |
| DRUM         | 0               | 0    | 0    | 0             | 0    | 1    | 0                  | 1    | 0    | 0                     | 0    | 6    | 5          | 0    | 1    |                      |      |      |                    |      |      |
| EUSTIS       | 0               | 0    | 0    | 1             | 3    | 2    | 2                  | 2    | 0    | 0                     | 0    | 14   | 14         | 2    | 1    |                      |      |      |                    |      |      |
| HOOD         | 5               | 5    | 15   | 7             | 8    | 11   | 8                  | 11   | 8    | 18                    | 12   | 30   | 24         | 8    | 16   |                      |      |      |                    |      |      |
| HUACHUCA     | 1               | 0    | 3    | 2             | 3    | 3    | 2                  | 2    | 2    | 1                     | 1    | 17   | 13         | 6    | 7    |                      |      |      |                    |      |      |
| IRVING       | 0               | 0    | 5    | 0             | 2    | 2    | 2                  | 2    | 10   | 4                     | 12   | 10   | 0          | 1    |      |                      |      |      |                    |      |      |
| JACKSON      | 4               | 2    | 4    | 3             | 4    | 3    | 4                  | 4    | 6    | 5                     | 30   | 26   | 6          | 3    |      |                      |      |      |                    |      |      |
| KNOX         | 3               | 2    | 4    | 4             | 5    | 5    | 5                  | 4    | 7    | 8                     | 19   | 16   | 1          | 8    |      |                      |      |      |                    |      |      |
| LEAVENWORTH  | 0               | 0    | 2    | 3             | 3    | 2    | 3                  | 2    | 3    | 3                     | 3    | 1    | 16         | 13   | 1    | 1                    |      |      |                    |      |      |
| LEE          | 0               | 0    | 0    | 0             | 2    | 2    | 1                  | 1    | 0    | 0                     | 0    | 11   | 7          | 0    | 2    |                      |      |      |                    |      |      |
| LEONARD WOOD | 4               | 3    | 4    | 3             | 4    | 4    | 3                  | 5    | 4    | 4                     | 4    | 27   | 18         | 6    | 4    |                      |      |      |                    |      |      |
| MCCLELLAN    | 0               | 0    | 0    | 0             | 3    | 4    | 2                  | 2    | 7    | 4                     | 18   | 12   | 4          | 5    |      |                      |      |      |                    |      |      |
| MEADE        | 0               | 0    | 5    | 3             | 4    | 4    | 2                  | 2    | 1    | 1                     | 25   | 25   | 2          | 7    |      |                      |      |      |                    |      |      |
| MONMOUTH     | 0               | 0    | 0    | 0             | 2    | 2    | 2                  | 2    | 0    | 0                     | 6    | 4    | 0          | 3    |      |                      |      |      |                    |      |      |
| ORD          | 6               | 5    | 7    | 5             | 5    | 7    | 5                  | 3    | 9    | 10                    | 33   | 22   | 13         | 20   |      |                      |      |      |                    |      |      |
| PANAMA       | 0               | 0    | 0    | 0             | 0    | 0    | 0                  | 0    | 1    | 0                     | 0    | 0    | 0          | 0    | 0    |                      |      |      |                    |      |      |
| POLK         | 5               | 5    | 11   | 7             | 5    | 4    | 4                  | 2    | 8    | 8                     | 25   | 18   | 2          | 15   |      |                      |      |      |                    |      |      |
| REDSTONE     | 0               | 0    | 1    | 1             | 2    | 1    | 2                  | 1    | 0    | 0                     | 0    | 8    | 8          | 0    | 1    |                      |      |      |                    |      |      |
| RILEY        | 2               | 2    | 7    | 4             | 4    | 3    | 4                  | 4    | 6    | 4                     | 17   | 14   | 0          | 2    |      |                      |      |      |                    |      |      |
| RUCKER       | 2               | 1    | 2    | 2             | 2    | 4    | 2                  | 3    | 1    | 3                     | 2    | 11   | 10         | 3    | 7    |                      |      |      |                    |      |      |
| SILL         | 0               | 0    | 8    | 5             | 7    | 7    | 4                  | 4    | 6    | 7                     | 7    | 30   | 20         | 11   | 6    |                      |      |      |                    |      |      |
| STEWART      | 2               | 2    | 8    | 6             | 7    | 5    | 4                  | 3    | 6    | 7                     | 7    | 27   | 26         | 4    | 9    |                      |      |      |                    |      |      |
| WAINWRIGHT   | 0               | 0    | 4    | 5             | 4    | 3    | 2                  | 2    | 8    | 7                     | 25   | 22   | 4          | 0    |      |                      |      |      |                    |      |      |
| WEST POINT   | 0               | 0    | 1    | 1             | 3    | 2    | 4                  | 2    | 4    | 2                     | 14   | 12   | 3          | 2    |      |                      |      |      |                    |      |      |

| FORSCOM<br>TO&E UNIT            | ASGD | BREAKOUT BY AOC                              |
|---------------------------------|------|--|
| 41ST CSH<br>FT SAM HOUSTON, TX  | 25   | (2) 66F, (1) 66E, (19) 66H, (3) 66J          |
| 47TH CSH<br>FT LEWIS, WA        | 28   | (1) 66C, (4) 66E, (1) 66F, (20) 66H, (2) 66J |
| 2D MASH<br>FT BENNING, GA       | 18   | (2) 66E, (1) 66G, (15) 66H                   |
| 5TH MASH<br>FT BRAGG, NC        | 12   | (1) 66A, (1) 66D, (1) 66E, (1) 66F, (8) 66H  |
| 28TH CSH<br>FT BRAGG, NC        | 14   | (2) 66E, (1) 66F, (8) 66H, (3) 66J           |
| 86TH EVAC<br>FT CAMPBELL, KY    | 16   | (1) 66E, (1) 66F, (7) 66H, (6) 66J, (1) 66D  |
| 10TH MASH<br>FT CARSON, CO      | 10   | (1) 66A, (1) 66F, (1) 66E, (6) 66H, (1) 66J  |
| 21ST EVAC<br>FT HOOD, TX        | 19   | (3) 66D, (2) 66E, (1) 66F, (12) 66H, (1) 66J |
| 42D FLD<br>FT KNOX, KY          | 12   | (1) 66E, (1) 66F, (10) 66H                   |
| 85TH EVAC<br>FT LEE, VA         | 4    | (4) 66H                                      |
| 93D EVAC<br>FT LEONARD WOOD, MO | 16   | (2) 66E, (1) 66F, (8) 66H, (5) 66J           |
| 8TH EVAC<br>FT ORD, CA          | 18   | (1) 66E, (1) 66F, (13) 66H, (3) 66J          |
| 15TH EVAC<br>FT POLK, LA        | 10   | (1) 66E, (1) 66F, (8) 66H                    |
| 16TH MASH<br>FT RILEY, KS       | 9    | (1) 66F, (8) 66H                             |
| 47TH FLD<br>FT SILL, OK         | 11   | (1) 66E, (1) 66F, (9) 66H                    |

PA INFORMATION

The issue over commissioning PAs has caused some delay in separations due to retirement/resignation. Inaction by DA or Congressional Staff may add, in the short term, to the attrition rate. Of the 646 Required and 529 authorized PA slots, we will be short this year.

It appears that only about 434 PAs will be available to distribute. Projected break down is:

|     |                         |
|-----|-------------------------|
| 130 | Europe                  |
| 28  | Korea                   |
| 13  | Hawaii                  |
| 4   | Panama                  |
| 245 | Between FORSCOM and HSC |
| 14  | Other                   |
| 434 | TOTAL                   |

HSC's "share of the 245 listed above could range from 47 to 85 with a best guess of 75.

The "600" AOC Section of TAB B gives you our best guess for FY 91 Distribution. Some 31 of our 75 PAs are specialty trained. These PA specialists are "hidden" in the distribution scheme. BAMC, for example, is projected for 3 PAs next year; but 2 of them will be Perfusionist trained.

The Specialists are: Cardiac Perfusionists (14), Occupational Health (6), and Orthopedic (15).

Projected Distribution of Specialized PAs is as follows:

Cardiac Perfusionists: BAMC-4, TAMC-2, WRAMC-4, FAMC-2, LAMC-2.

Occupational Health: 1 each to MAMC, BRAGG, CAMPBELL, DRUM, HOOD, and ORD.

Orthopedic: BELVOIR, 2 BENNING, BRAGG, CAMPBELL, CARSON, EUSTIS, JACKSON, KNOX, LEE, LEONARD WOOD, PANAMA, POLK, STEWART AND ACAD OF HEALTH SCIENCES.

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CLINICAL MISSIONS  
ALPHABETIZED

| MISSION TITLE                  | RECORD NUMBER | CLINICAL MISSION CODE |
|--------------------------------|---------------|-----------------------|
| ADOLESCENT PEDIATRICS          | 52            | PED04                 |
| ADOLESCENT PSYCHIATRY          | 64            | PSY03                 |
| ADULT NEUROLOGY                | 69            | PSY08                 |
| ADULT PSYCHIARTY               | 63            | PSY02                 |
| ALCOHOL/DRUG DETOXIFICATION    | 65            | PSY04                 |
| ALLERG CLIN IMM SP 300-F4      | 136           | TRA27                 |
| ALLERGY                        | 17            | MED06                 |
| ALLERGY EXTRACT PREP           | 18            | MED07                 |
| AMOSIST TRAINING PH2 300-F3    | 135           | TRA26                 |
| ANATOMICAL PATHOLOGY           | 44            | PAT01                 |
| ANESTH FOR ANC OFF PH2 6F-66F  | 117           | TRA08                 |
| ANESTHESIA                     | 79            | SUR02                 |
| ANESTHESIOLOGY MC RESIDENCY    | 183           | TRC01                 |
| AREA VETERINARY LAB            | 48            | PAT05                 |
| ARMY OT CLINICAL AFFIL PRGM    | 161           | TRA52                 |
| AUDIOLOGY                      | 107           | SUR30                 |
| AURAL REHABILITATION           | 85            | SUR08                 |
| AVIATION MED RES PRGM PH 111   | 167           | TRA58                 |
| AVIATION MEDICINE              | 39            | OTH06                 |
| BLIND REHABILITATION           | 83            | SUR06                 |
| BLOOD BANK FELLOWSHIP          | 126           | TRA17                 |
| BLOOD DONOR CENTER             | 46            | PAT03                 |
| BLOOD TRANSFUSION CENTER       | 47            | PAT04                 |
| CARDIAC CATH LAB               | 15            | MED04                 |
| CARDIAC SP PH2 303-91N10       | 141           | TRA32                 |
| CARDIOLOGY                     | 14            | MED03                 |
| CARDIOVAS (NOT OPEN HEART)     | 93            | SUR16                 |
| CARDIOVAS (OPEN HEART)         | 92            | SUR15                 |
| CARDIOVAS TECH PH2 300-Y6      | 151           | TRA42                 |
| CARDIOVASCULAR SURGE TECH (WO) | 157           | TRA48                 |
| CHILD NEUROLOGY                | 70            | PSY09                 |
| CHILD ORTHOPEDIC MC RESIDENCY  | 196           | TRC14                 |
| CLIN PSYCH INTERN/FELLOWSHIP   | 124           | TRA15                 |
| CLINICAL INVESTIGATION SERVICE | 37            | OTH04                 |
| CLINICAL PASTORAL EDUCATION    | 127           | TRA18                 |
| CLINICAL PATHOLOGY             | 45            | PAT02                 |
| CLINICAL PSYCHOLOGY            | 71            | PSY10                 |
| COMB MED/PED MC INTERNSHIP 61F | 173           | TRB01                 |
| COMBINED MED/PEDS MC RESIDENCY | 188           | TRC06                 |
| COMMUNITY MENTAL HLTH FELLOW   | 159           | TRA50                 |
| CORNEAL TRANSPLANT.            | 109           | SUR32                 |
| CYTOLGY SP 311-92E20           | 145           | TRA36                 |
| DC RESIDENCY (TRE01-TRE08)     | 112           | TRA03                 |
| DENTAL THER ASST 330-91E30     | 147           | TRA38                 |
| DENTAL THERAPY ASST (CIVILIAN) | 164           | TRA55                 |
| DERMATOLOGY                    | 16            | MED05                 |
| DERMATOLOGY MC RESIDENCY       | 184           | TRC02                 |
| DERMATOLOGY TECH D2            | 154           | TRA45                 |

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CLINICAL MISSIONS  
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| MISSION TITLE                  | RECORD NUMBER | CLINICAL MISSION CODE |
|--------------------------------|---------------|-----------------------|
| DEVELOPMENTAL PEDIATRICS       | 53            | PED05                 |
| DIAGNOS RADIOLGY MC RESIDENCY  | 203           | TRC21                 |
| DIAGNOSTIC RADIOLGY            | 75            | RAD03                 |
| DIALYSIS TECHNICIAN 300-F2     | 134           | TRA25                 |
| DIETARY COUNSELING             | 43            | OTH10                 |
| DIETETIC INTERNSHIP            | 121           | TRA12                 |
| EEG TECHNICIAN T6              | 155           | TRA46                 |
| EKG TECHNICIAN Y6              | 156           | TRA47                 |
| ELECTROENCEPHALOGRAPHY         | 67            | PSY06                 |
| ELECTRONEUROMYOGRAPHY          | 68            | PSY07                 |
| EMERGCY MED MC INTERNSHIP 62A  | 174           | TRB02                 |
| EMERGENCY MED MC RESIDENCY     | 185           | TRC03                 |
| EMERGENCY MED TECH (EMT)       | 149           | TRA40                 |
| EMERGENCY MEDICINE             | 28            | MED17                 |
| ENDOCRINOLOGY                  | 24            | MED13                 |
| ENDODONTIC DC RESIDENCY        | 251           | TRE03                 |
| ENDODONTICS                    | 2             | DENO2                 |
| ENT SPECIALIST PH2 300-91U10   | 130           | TRA21                 |
| EXCEPTIONAL FAMILY MEM PROGRAM | 57            | PED09                 |
| EYE SPECIALIST PH2 300-91Y10   | 132           | TRA23                 |
| FAMILY PRAC MC INTERNSHIP 61H  | 175           | TRB03                 |
| FAMILY PRACTICE                | 38            | OTH05                 |
| FAMILY PRACTICE MC RESIDENCY   | 186           | TRC04                 |
| FITTING OF HEARING AIDS        | 86            | SUR09                 |
| FIXED PROSTHODONTICS           | 9             | DENO9                 |
| FIXED PROSTHODONTICS RESIDENCY | 252           | TRE04                 |
| FLIGHT SURGEON BASIC COURSE    | 170           | TRA61                 |
| FORENSIC PSYCHIATRY FELLOWSHIP | 171           | TRA62                 |
| GASTROENTEROLOGY               | 13            | MED02                 |
| GENERAL DENTISTRY DC RESIDENCY | 249           | TRE01                 |
| GENERAL PEDIATRICS             | 49            | PED01                 |
| GENERAL SURG MC INTERNSHIP 61J | 176           | TRB04                 |
| GENERAL SURGERY                | 90            | SUR13                 |
| GENERAL SURGERY MC RESIDENCY   | 187           | TRC05                 |
| GYNECOLOGY                     | 31            | OBG03                 |
| HAND SURGERY                   | 99            | SUR22                 |
| HEAD AND NECK                  | 104           | SUR27                 |
| HEALTH CARE ADMIN RES 6H-67A   | 128           | TRA19                 |
| HEALTH PHYSICS                 | 76            | RAD04                 |
| HEALTH PSYCHOLOGY FELLOWSHIP   | 160           | TRA51                 |
| HEALTH RISK APPRAISAL          | 40            | OTH07                 |
| HEM/ONC PHARMACY RESID 6H-F21  | 118           | TRA09                 |
| HEMATOLOGY                     | 20            | MED09                 |
| HEMODIALYSIS                   | 22            | MED11                 |
| HLTH PHYSICS SP PH2 311-91X20  | 153           | TRA44                 |
| HOSPITAL PHARMACY RESIDENCY    | 123           | TRA14                 |
| IMMUNOLOGY                     | 19            | MED08                 |
| INDUSTRIAL HYGIENE             | 41            | OTH08                 |

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CLINICAL MISSIONS  
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| MISSION TITLE                   | RECORD NUMBER | CLINICAL MISSION CODE |
|---------------------------------|---------------|-----------------------|
| INFECTIOUS DISEASE              | 26            | MED15                 |
| INTENSIVE CARE NURSING (6F-F5)  | 158           | TRA49                 |
| INTERNAL MED MC INTERNSHIP 61F  | 177           | TRB05                 |
| INTERNAL MEDICINE               | 27            | MED16                 |
| INTERNAL MEDICINE MC RESIDENCY  | 208           | TRC26                 |
| INTERVERTEBRAL DISC             | 97            | SUR20                 |
| LASER                           | 81            | SUR04                 |
| MAGNETIC RESONANCE IMAGING      | 77            | RAD05                 |
| MAXILLOFACIAL SURGERY           | 103           | SUR26                 |
| MC FELLOWSHIP ADOLESCENT MED    | 209           | TRD01                 |
| MC FELLOWSHIP ALLERGY           | 210           | TRD02                 |
| MC FELLOWSHIP ANGIOGRAPHY       | 211           | TRD03                 |
| MC FELLOWSHIP CARDIOLOGY        | 212           | TRD04                 |
| MC FELLOWSHIP CHEM/DERM SURG    | 213           | TRD05                 |
| MC FELLOWSHIP CHILD & ADOL PSY  | 214           | TRD06                 |
| MC FELLOWSHIP CHILD NEUROLOGY   | 215           | TRD07                 |
| MC FELLOWSHIP CRIT CARE MED     | 216           | TRD08                 |
| MC FELLOWSHIP CYTOPATHOLOGY     | 217           | TRD09                 |
| MC FELLOWSHIP DEV PEDIATRICS    | 218           | TRD10                 |
| MC FELLOWSHIP EEG/EMG           | 219           | TRD11                 |
| MC FELLOWSHIP EEG/EMG NEUROPHY  | 220           | TRD12                 |
| MC FELLOWSHIP ENDOCRINOLOGY     | 221           | TRD13                 |
| MC FELLOWSHIP FAC DEV RESEARCH  | 222           | TRD14                 |
| MC FELLOWSHIP GASTROENTEROLOGY  | 223           | TRD15                 |
| MC FELLOWSHIP GEN INTERNAL MED  | 224           | TRD16                 |
| MC FELLOWSHIP GYN-ENDOCRINOLOGY | 225           | TRD17                 |
| MC FELLOWSHIP GYN-ONCOLOGY      | 226           | TRD18                 |
| MC FELLOWSHIP HAND SURGERY      | 247           | TRD39                 |
| MC FELLOWSHIP HEMA/ONCOLOGY     | 248           | TRD40                 |
| MC FELLOWSHIP IMAGING/CT ULTRA  | 227           | TRD19                 |
| MC FELLOWSHIP INFECTIOUS DIS    | 228           | TRD20                 |
| MC FELLOWSHIP MATERN&FETAL MED  | 229           | TRD21                 |
| MC FELLOWSHIP NEONATOLOGY       | 230           | TRD22                 |
| MC FELLOWSHIP NEPHROLOGY        | 231           | TRD23                 |
| MC FELLOWSHIP NEURO OPHTHAL     | 232           | TRD24                 |
| MC FELLOWSHIP NEURO RADIOLOGY   | 233           | TRD25                 |
| MC FELLOWSHIP NUCLEAR MEDICINE  | 234           | TRD26                 |
| MC FELLOWSHIP PED ENDOCRINOLOGY | 235           | TRD27                 |
| MC FELLOWSHIP PED GASTRO        | 236           | TRD28                 |
| MC FELLOWSHIP PED HEMA/ONCOL    | 237           | TRD29                 |
| MC FELLOWSHIP PED INFEC DIS     | 238           | TRD30                 |
| MC FELLOWSHIP PERIPH VAS SURG   | 239           | TRD31                 |
| MC FELLOWSHIP PLASTIC SURGERY   | 240           | TRD32                 |
| MC FELLOWSHIP PSYCHOSOMATIC     | 241           | TRD33                 |
| MC FELLOWSHIP PULMONARY DIS     | 242           | TRD34                 |
| MC FELLOWSHIP RENAL TRANSPLANT  | 243           | TRD35                 |
| MC FELLOWSHIP RETINAL SURGERY   | 244           | TRD36                 |
| MC FELLOWSHIP RHEUMATOLOGY      | 245           | TRD37                 |

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CLINICAL MISSIONS  
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| MISSION TITLE                  | RECORD NUMBER | CLINICAL MISSION CODE |
|--------------------------------|---------------|-----------------------|
| MC FELLOWSHIP THORACIC SURGERY | 246           | TRD38                 |
| MC INTERNSHIP (TRB01-TRB10)    | 110           | TRA01                 |
| MC PRESP SURG TRAINING UROLOGY | 207           | TRC25                 |
| MC RESIDENCY/FELLOWSHIP TRC/D  | 111           | TRA02                 |
| MEDICAL TECHNOLOGY 6H-68F      | 144           | TRA35                 |
| MEDICAL TECHNOLOGY (311-F2)    | 162           | TRA53                 |
| NEONATAL INTENSIVE CARE        | 50            | PED02                 |
| NEPHROLOGY                     | 21            | MED10                 |
| NEUROLOGY                      | 66            | PSY05                 |
| NEUROLOGY MC INTERNSHIP 60V    | 178           | TRB06                 |
| NEUROLOGY MC RESIDENCY         | 189           | TRC07                 |
| NEUROMUSCULOSKELETAL EVALUAT   | 61            | PHY04                 |
| NEUROPSYCHOLOGY FELLOWSHIP     | 169           | TRA60                 |
| NEUROSURGERY                   | 89            | SUR12                 |
| NEUROSURGERY MC RESIDENCY      | 190           | TRC08                 |
| NUCLEAR MED SP (HM 8416) 91W10 | 148           | TRA39                 |
| NUCLEAR MEDICINE               | 73            | RAD01                 |
| NUCLEAR PHARM RESIDENCY 6H-F19 | 116           | TRA07                 |
| NUCLEAR/CHEMICAL OPERATIONS    | 42            | OTH09                 |
| NURS PRAC OB/GYN 6F-F4         | 120           | TRA11                 |
| NURS PRACT ADULT MED 6F-66H    | 119           | TRA10                 |
| NURS PRACT PEDIATRICS 6F-66D   | 114           | TRA05                 |
| NURSE CLINICIAN AMB CARE       | 163           | TRA54                 |
| NURSE MIDWIFERY                | 165           | TRA56                 |
| NURSE MIDWIFERY                | 33            | OBG05                 |
| OB-GYN MC INTERNSHIP 60J       | 179           | TRB07                 |
| OB-GYN MC RESIDENCY            | 191           | TRC09                 |
| OBSTETRICS                     | 29            | OBG01                 |
| OCCUPAT THER SP PH2 303-91L10  | 140           | TRA31                 |
| OCCUPATIONAL MED MC RESIDENCY  | 192           | TRC10                 |
| OCCUPATIONAL MEDICINE          | 35            | OTH02                 |
| OCCUPATIONAL THERAPY           | 59            | PHY02                 |
| OCULAR PROSTHESIS              | 82            | SUR05                 |
| ONCOLOGY                       | 23            | MED12                 |
| OPERATING RM SP PH2 301-91D10  | 137           | TRA28                 |
| OPERATING ROOM NURSE 6F-66E    | 115           | TRA06                 |
| OPHTHALMOLOGY                  | 80            | SUR03                 |
| OPHTHALMOLOGY MC RESIDENCY     | 193           | TRC11                 |
| OPTOMETRY                      | 105           | SUR28                 |
| ORAL AND MAXILLOFACIAL SURGERY | 4             | DEN04                 |
| ORAL MEDICINE                  | 11            | DEN11                 |
| ORAL PATHOLOGY                 | 10            | DEN10                 |
| ORAL SURGERY DC RESIDENCY      | 256           | TRE08                 |
| ORGAN TRANSPLANT               | 102           | SUR25                 |
| ORTHO SURGERY MC RESIDENCY     | 195           | TRC13                 |
| ORTHODONTICS                   | 6             | DEN06                 |
| ORTHODONTICS DC RESIDENCY      | 255           | TRE07                 |
| ORTHOPEDIC PROSTHETICS         | 100           | SUR23                 |

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| MISSION TITLE                  | RECORD NUMBER | CLINICAL MISSION CODE |
|--------------------------------|---------------|-----------------------|
| ORTHOPEDIC SP 304-91H10        | 143           | TRA34                 |
| ORTHOPEDIC SURGERY             | 95            | SUR18                 |
| ORTHOPEDICS MC RESIDENCY       | 194           | TRC12                 |
| ORTHOTIC SP PH2 304-42C10      | 142           | TRA33                 |
| OTOLARYNGOLOGY MC RESIDENCY    | 197           | TRC15                 |
| OTORHINOLARYNGOLOGY            | 84            | SUR07                 |
| PATHOLOGY MC RESIDENCY         | 198           | TRC16                 |
| PEDIATRIC CARDIOLOGY           | 54            | PED06                 |
| PEDIATRIC ENDOCRINOLOGY        | 61            | PED03                 |
| PEDIATRIC NEUROLOGY            | 56            | PED08                 |
| PEDIATRIC SURGERY              | 55            | PED07                 |
| PEDIATRICS MC INTERNSHIP 60P   | 180           | TRB08                 |
| PEDIATRICS MC RESIDENCY        | 199           | TRC17                 |
| PEDODONTICS                    | 5             | DEN05                 |
| PEDODONTICS DC RESIDENCY       | 254           | TRE06                 |
| PERINATOLOGY                   | 30            | OBG02                 |
| PERIODONTIC DC RESIDENCY       | 250           | TRE02                 |
| PERIODONTICS                   | 7             | DEN07                 |
| PERIPHERAL VASCULAR SURGERY    | 101           | SUR24                 |
| PHARMACY INTERNSHIP TRNG PRGM  | 166           | TRA57                 |
| PHYSIATRY                      | 58            | PHY01                 |
| PHYSICAL MEDICINE MC RESIDENCY | 200           | TRC18                 |
| PHYSICAL THER SP PH2 303-91J10 | 139           | TRA30                 |
| PHYSICAL THERAPY               | 60            | PHY03                 |
| PHYSICIAN ASSIST PH2 6H0011A   | 150           | TRA41                 |
| PLASTIC SURGERY                | 94            | SUR17                 |
| PODIATRY                       | 106           | SUR29                 |
| PODIATRY RESIDENCY             | 172           | TRA63                 |
| PRACTICAL NURSE COURSE 91C30   | 129           | TRA20                 |
| PREVENTIVE DENTISTRY           | 1             | DEN01                 |
| PREVENTIVE MEDICINE            | 34            | OTH01                 |
| PSYCH & MENT HLTH NUR 6F-66C   | 113           | TRA04                 |
| PSYCHIATRIC SP PH2 302-91F10   | 138           | TRA29                 |
| PSYCHIATRY                     | 62            | PSY01                 |
| PSYCHIATRY MC INTERNSHIP 60W   | 181           | TRB09                 |
| PSYCHIATRY MC RESIDENCY        | 201           | TRC19                 |
| PUBLIC HEALTH MC RESIDENCY     | 202           | TRC20                 |
| PUBLIC HEALTH RESIDENCY        | 168           | TRA59                 |
| PULMONARY DISEASE              | 12            | MED01                 |
| RADIATION THERAPY              | 74            | RAD02                 |
| RADN/ONCOLOGY MC RESIDENCY     | 205           | TRC23                 |
| REMOV PROSTHODONTICS RESIDENCY | 253           | TRE05                 |
| REMOVABLE PROSTHODONTICS       | 8             | DEN08                 |
| RESIDENTIAL TREATMENT FACILITY | 36            | OTH03                 |
| RESP SPECIALIST 300-91V10      | 131           | TRA22                 |
| RESTORATIVE DENTISTRY          | 3             | DEN03                 |
| RHEUMATOLOGY                   | 25            | MED14                 |
| SAME DAY SURGERY               | 96            | SUR19                 |

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| MISSION TITLE                  | RECORD NUMBER | CLINICAL MISSION CODE |
|--------------------------------|---------------|-----------------------|
| SF AIDMAN(ABN) PH2 300-F1      | 133           | TRA24                 |
| SOC WRK ADV PRG FAMILY STUDIES | 125           | TRA16                 |
| SOCIAL WORK                    | 72            | PSY11                 |
| SPEECH PATHOLOGY               | 87            | SUR10                 |
| SPEECH THERAPY                 | 88            | SUR11                 |
| THERAP RADIOLOGY MC RESIDENCY  | 204           | TRC22                 |
| THERAPEUTIC ABORTION BOARD     | 32            | OBG04                 |
| THORACIC SURGERY               | 91            | SUR14                 |
| TOTAL JOINT PROSTHESIS         | 98            | SUR21                 |
| TRANSITIONAL MC INTERNSHIP 60E | 182           | TRB10                 |
| TRAUMA SURGERY                 | 108           | SUR31                 |
| UROLOGY                        | 78            | SUR01                 |
| UROLOGY MC RESIDENCY           | 206           | TRC24                 |
| UROLOGY PROCEDURES 300-F12     | 152           | TRA43                 |
| USA/BAYLOR PT CLIN EXP 6H-66B  | 122           | TRA13                 |
| X-RAY SP PH2 313-91P10         | 146           | TRA37                 |

| Record# | FACNUM | FNAME     | TOT_MWU   | TOT_PROV | AVG_PROV |
|---------|--------|-----------|-----------|----------|----------|
| 1       | 20.0   | BEN HARRI | 3721.80   | 29.13    | 127.77   |
| 2       | 10.0   | BELVOIR   | 15563.90  | 118.10   | 131.79   |
| 3       | 30.0   | MONMOUTH  | 5049.50   | 36.70    | 137.59   |
| 4       | 25.0   | LEAVENWOR | 6730.60   | 48.40    | 139.06   |
| 5       | 34.0   | REDSTONE  | 5772.20   | 40.83    | 141.37   |
| 6       | 32.0   | PANAMA    | 13073.30  | 90.00    | 145.26   |
| 7       | 16.0   | DRUM      | 4288.40   | 29.00    | 147.88   |
| 8       | 36.0   | RUCKER    | 8682.70   | 57.73    | 150.40   |
| 9       | 39.0   | WEST POIN | 7258.60   | 48.20    | 150.59   |
| 10      | 15.0   | DEVENS    | 6749.10   | 43.80    | 154.09   |
| 11      | 29.0   | MEADE     | 18634.20  | 120.40   | 154.77   |
| 12      | 4.0    | LAMC      | 26431.80  | 157.80   | 167.50   |
| 13      | 27.0   | LEONARD W | 18979.40  | 111.42   | 170.34   |
| 14      | 38.0   | STEWART   | 12995.10  | 75.00    | 173.27   |
| 15      | 28.0   | MCCLELLAN | 9880.80   | 56.50    | 174.88   |
| 16      | 23.0   | JACKSON   | 16574.00  | 92.34    | 179.49   |
| 17      | 18.0   | EUSTIS    | 9504.70   | 51.66    | 183.99   |
| 18      | 21.0   | HUACHUCA  | 7516.20   | 40.70    | 184.67   |
| 19      | 2.0    | DDEAMC    | 35225.50  | 186.96   | 188.41   |
| 20      | 9.0    | ALASKA    | 6981.30   | 36.50    | 191.27   |
| 21      | 37.0   | SILL      | 17659.40  | 91.95    | 192.05   |
| 22      | 26.0   | LEE       | 9804.20   | 49.70    | 197.27   |
| 23      | 66.0   | HSC AVG   | 741365.10 | 3729.31  | 198.79   |
| 24      | 17.0   | DIX       | 14156.80  | 71.20    | 198.83   |
| 25      | 3.0    | FAMC      | 40440.40  | 200.80   | 201.40   |
| 26      | 31.0   | ORD       | 20064.90  | 98.90    | 202.88   |
| 27      | 14.0   | CARSON    | 20096.60  | 95.31    | 210.86   |
| 28      | 8.0    | WRAMC     | 71534.60  | 338.90   | 211.08   |
| 29      | 22.0   | IRWIN     | 3780.40   | 17.60    | 214.80   |
| 30      | 33.0   | POLK      | 13489.90  | 61.80    | 218.28   |
| 31      | 12.0   | BRAGG     | 35053.00  | 159.28   | 220.07   |
| 32      | 5.0    | MAMC      | 45265.10  | 202.60   | 223.42   |
| 33      | 6.0    | TAMC      | 48867.60  | 217.17   | 225.02   |
| 34      | 35.0   | RILEY     | 15872.20  | 68.70    | 231.04   |
| 35      | 19.0   | HOOD      | 32772.10  | 138.99   | 235.79   |
| 36      | 7.0    | WBAMC     | 42045.00  | 171.11   | 245.72   |
| 37      | 24.0   | KNOX      | 22438.00  | 90.80    | 247.11   |
| 38      | 11.0   | BENNING   | 26622.70  | 102.08   | 260.80   |
| 39      | 13.0   | CAMPBELL  | 21789.10  | 81.25    | 268.17   |

| Record# | FACNUM | FNAME     | SSI | TOTAL | SPEC_MWU | MWU_PROV |
|---------|--------|-----------|-----|-------|----------|----------|
| 793     | 28.0   | MCCLELLAN | 61H | 0.0   |          | 0.00     |
| 794     | 9.0    | ALASKA    | 61H | 0.0   |          | 0.00     |
| 95      | 40.0   | AHS STAFF | 61H | 1.0   |          | 0.00     |
| /96     | 7.0    | WBAMC     | 61H | 6.0   | 0.00     | 0.00     |
| 797     | 4.1    | SIERRA    | 61H | 0.0   |          | 0.00     |
| 798     | 29.1   | ABERDEEN  | 61H | 0.0   |          | 0.00     |
| 799     | 2.2    | MCPHERSON | 61H | 4.0   |          | 0.00     |
| 800     | 4.0    | LAMC      | 61H | 0.0   |          | 0.00     |
| 801     | 37.2   | PINE BLUF | 61H | 1.0   |          | 0.00     |
| 802     | 8.3    | RADER     | 61H | 0.0   |          | 0.00     |
| 803     | 6.1    | SCHOFIELD | 61H | 10.0  |          | 0.00     |
| 804     | 8.2    | PENTAGON  | 61H | 0.0   |          | 0.00     |
| 805     | 2.1    | BUCHANAN  | 61H | 2.0   |          | 0.00     |
| 806     | 3.1    | DUGWAY    | 61H | 0.0   |          | 0.00     |
| 807     | 9.2    | RICHARDSO | 61H | 0.0   |          | 0.00     |
| 808     | 15.0   | DEVENS    | 61H | 3.0   |          | 0.00     |
| 809     | 31.1   | HUNTER LI | 61H | 0.0   |          | 0.00     |
| 810     | 10.2   | VINT HILL | 61H | 1.0   |          | 0.00     |
| 811     | 42.0   | HDQ HSC   | 61H | 0.0   |          | 0.00     |
| 812     | 8.0    | WRAMC     | 61H | 21.4  | 0.00     | 0.00     |
| 813     | 3.3    | TOOELE    | 61H | 0.0   |          | 0.00     |
| 814     | 32.1   | COCO SOLO | 61H | 0.0   |          | 0.00     |
| 815     | 29.2   | CARLISLE  | 61H | 5.0   |          | 0.00     |
| 816     | 19.0   | HOOD      | 61H | 1.3   |          | 0.00     |
| 817     | 36.0   | RUCKER    | 61H | 0.0   |          | 0.00     |
| 818     | 29.3   | DETTRICK  | 61H | 3.0   |          | 0.00     |
| 819     | 21.0   | HUACHUCA  | 61H | 0.0   |          | 0.00     |
| 20      | 30.0   | MONMOUTH  | 61H | 0.0   |          | 0.00     |
| 21      | 27.4   | SHERIDAN  | 61H | 0.0   |          | 0.00     |
| 822     | 29.5   | NEW CUMBE | 61H | 0.0   |          | 0.00     |
| 823     | 29.6   | RICHIE    | 61H | 2.0   |          | 0.00     |
| 824     | 26.0   | LEE       | 61H | 0.0   |          | 0.00     |
| 825     | 18.0   | EUSTIS    | 61H | 0.0   |          | 0.00     |
| 826     | 9.1    | GREELY    | 61H | 0.0   |          | 0.00     |
| 827     | 27.2   | ST LOUIS  | 61H | 0.0   |          | 0.00     |
| 828     | 31.2   | MONTERREY | 61H | 4.0   |          | 0.00     |
| 829     | 10.0   | BELVOIR   | 61H | 33.0  | 2070.90  | 62.75    |
| 830     | 16.0   | DRUM      | 61H | 13.0  | 991.50   | 76.27    |
| 831     | 39.0   | WEST POIN | 61H | 4.0   | 543.20   | 135.80   |
| 832     | 17.0   | DIX       | 61H | 3.0   | 431.70   | 143.90   |
| 833     | 35.0   | RILEY     | 61H | 6.9   | 1004.10  | 145.52   |
| 834     | 34.0   | REDSTONE  | 61H | 7.3   | 1119.10  | 153.30   |
| 835     | 22.0   | IRWIN     | 61H | 4.0   | 695.40   | 173.85   |
| 836     | 14.0   | CARSON    | 61H | 6.0   | 1076.60  | 179.43   |
| 837     | 38.0   | STEWART   | 61H | 7.0   | 1293.20  | 184.74   |
| 838     | 25.0   | LEAVENWOR | 61H | 3.0   | 653.70   | 217.90   |
| 839     | 12.0   | BRAGG     | 61H | 21.0  | 5053.90  | 240.66   |
| 840     | 5.0    | MAMC      | 61H | 10.0  | 2437.30  | 243.73   |
| 841     | 33.0   | POLK      | 61H | 15.8  | 4053.50  | 256.55   |
| 842     | 31.0   | ORD       | 61H | 14.0  | 3649.30  | 260.66   |
| 843     | 13.0   | CAMPBELL  | 61H | 9.0   | 2451.00  | 272.33   |
| 844     | 11.0   | BENNING   | 61H | 17.0  | 4689.20  | 275.84   |
| 45      | 2.0    | DDEAMC    | 61H | 19.0  | 5298.30  | 278.86   |
| 46      | 20.0   | BEN HARRI | 61H | 3.0   | 838.40   | 279.47   |
| 847     | 37.0   | SILL      | 61H | 23.7  | 7358.10  | 310.47   |
| 848     | 32.0   | PANAMA    | 61H | 1.0   | 383.80   | 383.80   |
| 849     | 27.0   | LEONARD W | 61H | 6.0   | 2353.80  | 392.30   |
| 850     | 6.0    | TAMC      | 61H | 2.2   | 1599.20  | 730.23   |

851 29.0 MEADE 61H 0.0 355.70 999999.99

| FACNUM | FNAME  | SSI # | PROV | SPEC   | MWU | TOT | MWU | TOT | PROV | MWU/PROV | Avg | PROV |
|--------|--------|-------|------|--------|-----|-----|-----|-----|------|----------|-----|------|
| 1.0    | BAMC   | 00B   | 1.0  |        |     |     |     |     |      | 0        |     |      |
| 1.0    | BAMC   | 600   | 2.0  |        |     |     |     |     |      | 0        |     |      |
| 1.0    | BAMC   | 60A   | 2.0  |        |     |     |     |     |      | 0        |     |      |
| 1.0    | BAMC   | 60B   | 2.0  |        |     |     |     |     |      | 0        |     |      |
| 1.0    | BAMC   | 60C   | 1.0  |        |     |     |     |     |      | 0        |     |      |
| 1.0    | BAMC   | 60D   | 0.0  |        |     |     |     |     |      | ERR      |     |      |
| 1.0    | BAMC   | 60F   | 4.0  |        |     |     |     |     |      | 0        |     |      |
| 1.0    | BAMC   | 60G   | 6.0  |        |     |     |     |     |      | 0        |     |      |
| 1.0    | BAMC   | 60H   | 9.0  |        |     |     |     |     |      | 0        |     |      |
| 1.0    | BAMC   | 60J   | 11.0 |        |     |     |     |     |      | 0        |     |      |
| 1.0    | BAMC   | 60K   | 3.0  |        |     |     |     |     |      | 0        |     |      |
| 1.0    | BAMC   | 60L   | 7.0  |        |     |     |     |     |      | 0        |     |      |
| 1.0    | BAMC   | 60M   | 2.0  |        |     |     |     |     |      | 0        |     |      |
| 1.0    | BAMC   | 60N   | 22.0 |        |     |     |     |     |      | 0        |     |      |
| 1.0    | BAMC   | 60P   | 21.0 |        |     |     |     |     |      | 0        |     |      |
| 1.0    | BAMC   | 60Q   | 1.0  |        |     |     |     |     |      | 0        |     |      |
| 1.0    | BAMC   | 60R   | 1.0  |        |     |     |     |     |      | 0        |     |      |
| 1.0    | BAMC   | 60S   | 6.0  |        |     |     |     |     |      | 0        |     |      |
| 1.0    | BAMC   | 60T   | 3.0  |        |     |     |     |     |      | 0        |     |      |
| 1.0    | BAMC   | 60U   | 0.0  |        |     |     |     |     |      | ERR      |     |      |
| 1.0    | BAMC   | 60V   | 3.0  |        |     |     |     |     |      | 0        |     |      |
| 1.0    | BAMC   | 60W   | 8.0  |        |     |     |     |     |      | 0        |     |      |
| 1.0    | BAMC   | 61A   | 3.0  |        |     |     |     |     |      | 0        |     |      |
| 1.0    | BAMC   | 61B   | 7.0  |        |     |     |     |     |      | 0        |     |      |
| 1.0    | BAMC   | 61C   | 1.0  |        |     |     |     |     |      | 0        |     |      |
| 1.0    | BAMC   | 61D   | 2.0  |        |     |     |     |     |      | 0        |     |      |
| 1.0    | BAMC   | 61F   | 21.0 |        |     |     |     |     |      | 0        |     |      |
| 1.0    | BAMC   | 61G   | 4.0  |        |     |     |     |     |      | 0        |     |      |
| 1.0    | BAMC   | 61J   | 6.0  |        |     |     |     |     |      | 0        |     |      |
| 1.0    | BAMC   | 61K   | 4.0  |        |     |     |     |     |      | 0        |     |      |
| 1.0    | BAMC   | 61L   | 2.0  |        |     |     |     |     |      | 0        |     |      |
| 1.0    | BAMC   | 61M   | 7.0  |        |     |     |     |     |      | 0        |     |      |
| 1.0    | BAMC   | 61N   | 1.0  |        |     |     |     |     |      | 0        |     |      |
| 1.0    | BAMC   | 61P   | 2.0  |        |     |     |     |     |      | 0        |     |      |
| 1.0    | BAMC   | 61Q   | 3.0  |        |     |     |     |     |      | 0        |     |      |
| 1.0    | BAMC   | 61R   | 10.0 |        |     |     |     |     |      | 0        |     |      |
| 1.0    | BAMC   | 61U   | 12.0 |        |     |     |     |     |      | 0        |     |      |
| 1.0    | BAMC   | 61W   | 1.0  |        |     |     |     |     |      | 0        |     |      |
| 1.0    | BAMC   | 61Z   | 7.0  |        |     |     |     |     |      | 0        |     |      |
| 1.0    | BAMC   | 62A   | 11.0 |        |     |     |     |     |      | 0        |     |      |
| 1.0    | BAMC   | 62B   | 15.0 |        |     |     |     |     |      | 0        |     |      |
| 1.0    | BAMC   | 8N    | 1.0  |        |     |     |     |     |      | 0        |     |      |
| 1.0    | BAMC   | CC    | 1.0  |        |     |     |     |     |      | 236      | 0   |      |
| 2.0    | DDEAMC | 00B   | 1.0  |        |     |     |     |     |      | 0        |     |      |
| 2.0    | DDEAMC | 600   | 7.0  |        |     |     |     |     |      | 0        |     |      |
| 2.0    | DDEAMC | 60A   | 1.0  |        |     |     |     |     |      | 0        |     |      |
| 2.0    | DDEAMC | 60B   | 2.0  |        |     |     |     |     |      | 0        |     |      |
| 2.0    | DDEAMC | 60C   | 1.0  | 105.8  |     |     |     |     |      | 105.8    |     |      |
|        | DDEAMC | 60D   |      | 157.6  |     |     |     |     |      | ERR      |     |      |
| 2.0    | DDEAMC | 60F   | 2.0  | 210.6  |     |     |     |     |      | 105.3    |     |      |
| 2.0    | DDEAMC | 60G   | 3.0  | 1185.3 |     |     |     |     |      | 395.1    |     |      |
| 2.0    | DDEAMC | 60H   | 4.0  | 719.0  |     |     |     |     |      | 179.75   |     |      |
| 2.0    | DDEAMC | 60J   | 8.0  | 3842.2 |     |     |     |     |      | 480.275  |     |      |
| 2.0    | DDEAMC | 60K   | 3.0  | 1021.4 |     |     |     |     |      | 340.4666 |     |      |
| 2.0    | DDEAMC | 60L   | 2.5  | 329.5  |     |     |     |     |      | 131.8    |     |      |

|               |     |      |                |                          |
|---------------|-----|------|----------------|--------------------------|
| 2.0 DDEAMC    | 60M | 2.0  | 78.5           | 39.25                    |
| 2.0 DDEAMC    | 60N | 16.4 |                | 0                        |
| 2.0 DDEAMC    | 60P | 13.0 | 2122.5         | 163.2692                 |
| 2.0 DDEAMC    | 60Q | 0.0  |                | ERR                      |
| 2.0 DDEAMC    | 60S | 1.2  | 382.5          | 318.75                   |
| 2.0 DDEAMC    | 60T | 2.0  | 679.5          | 339.75                   |
| 2.0 DDEAMC    | 60U | 2.0  | 159.3          | 79.65                    |
| 2.0 DDEAMC    | 60V | 2.2  | 245.2          | 111.4545                 |
| 2.0 DDEAMC    | 60W | 8.0  | 1736.0         | 217                      |
| 2.0 DDEAMC    | 61A | 1.0  | 290.5          | 290.5                    |
| 2.0 DDEAMC    | 61B | 3.0  | 928.8          | 309.6                    |
| 2.0 DDEAMC    | 61C | 2.0  | 322.3          | 161.15                   |
| 2.0 DDEAMC    | 61D | 2.0  | 125.0          | 62.5                     |
| 2.0 DDEAMC    | 61F | 4.7  | 4092.2         | 870.6808                 |
| 2.0 DDEAMC    | 61G | 2.0  | 59.8           | 29.9                     |
| 2.0 DDEAMC    | 61H | 19.0 | 5298.3         | 278.8578                 |
| 2.0 DDEAMC    | 61J | 3.0  | 2915.9         | 971.9666                 |
| 2.0 DDEAMC    | 61K | 1.4  | 349.7          | 253.4057                 |
| 2.0 DDEAMC    | 61L | 1.0  | 217.0          | 217                      |
| 2.0 DDEAMC    | 61M | 5.0  | 2913.6         | 582.72                   |
| DDEAMC        | 61N |      | 6.6            | ERR                      |
| 2.0 DDEAMC    | 61P | 2.0  | 67.5           | 33.75                    |
| 2.0 DDEAMC    | 61R | 7.0  |                | 0                        |
| 2.0 DDEAMC    | 61U | 7.0  |                | 0                        |
| 2.0 DDEAMC    | 61W | 1.0  |                | 0                        |
| 2.0 DDEAMC    | 61Z | 2.0  | 378.8          | 189.4                    |
| 2.0 DDEAMC    | 62A | 5.5  | 1425.9         | 259.2545                 |
| 2.0 DDEAMC    | 62B | 11.0 | 2858.7 35225.5 | 186.96 259.8818 188.4119 |
| 2.0 DDEAMC    | 8N  | 1.0  |                | 0                        |
| 2.0 DDEAMC    | CC  | 2.0  |                | 0                        |
| 2.1 BUCHANAN  | 60A | 1.0  |                | 0                        |
| 2.1 BUCHANAN  | 60P | 0.0  |                | ERR                      |
| 2.1 BUCHANAN  | 61H | 2.0  |                | 0                        |
| 2.1 BUCHANAN  | 61R | 1.0  |                | 0                        |
| 2.1 BUCHANAN  | 62B | 1.0  |                | 0                        |
| 2.2 MCPHERSON | 60A | 1.0  |                | 0                        |
| 2.2 MCPHERSON | 60D | 1.0  |                | 0                        |
| 2.2 MCPHERSON | 60J | 1.0  |                | 0                        |
| 2.2 MCPHERSON | 60P | 1.0  |                | 0                        |
| 2.2 MCPHERSON | 60V | 0.1  |                | 0                        |
| 2.2 MCPHERSON | 61F | 2.0  |                | 0                        |
| 2.2 MCPHERSON | 61H | 4.0  |                | 0                        |
| 2.2 MCPHERSON | 61N | 1.0  |                | 0                        |
| 2.2 MCPHERSON | 61R | 0.0  |                | ERR                      |
| 2.2 MCPHERSON | 62B | 7.0  |                | 0                        |
| 3.0 FAMC      | 00B | 1.0  |                | 0                        |
| 3.0 FAMC      | 600 | 2.0  |                | 0                        |
| 3.0 FAMC      | 60A | 1.0  |                | 0                        |
| 3.0 FAMC      | 60B | 2.0  |                | 0                        |
| 3.0 FAMC      | 60C | 1.0  | 234.5          | 234.5                    |
| 3.0 FAMC      | 60D | 0.0  | 268.2          | ERR                      |
| 3.0 FAMC      | 60F | 4.2  | 825.4          | 196.5238                 |
| 3.0 FAMC      | 60G | 4.0  | 1754.8         | 438.7                    |
| 3.0 FAMC      | 60H | 5.3  | 2913.0         | 549.6226                 |
| 3.0 FAMC      | 60J | 12.2 | 4239.6         | 347.5081                 |
| 3.0 FAMC      | 60K | 3.0  | 1595.2         | 531.7333                 |

|            |     |      |        |          |       |          |          |
|------------|-----|------|--------|----------|-------|----------|----------|
| 3.0 FAMC   | 60L | 4.0  | 538.8  | 134.7    |       |          |          |
| 3.0 FAMC   | 60M | 4.0  | 89.3   | 22.325   |       |          |          |
| 3.0 FAMC   | 60N | 21.8 |        | 0        |       |          |          |
| 3.0 FAMC   | 60P | 20.0 | 4684.4 | 234.22   |       |          |          |
| 3.0 FAMC   | 60Q | 0.4  |        | 0        |       |          |          |
| 3.0 FAMC   | 60R | 1.2  |        | 0        |       |          |          |
| 3.0 FAMC   | 60S | 6.2  | 1626.7 | 262.3709 |       |          |          |
| 3.0 FAMC   | 60T | 3.2  | 1243.5 | 388.5937 |       |          |          |
| 3.0 FAMC   | 60U | 2.0  | 82.3   | 41.15    |       |          |          |
| 3.0 FAMC   | 60V | 3.0  | 387.8  | 129.2666 |       |          |          |
| 3.0 FAMC   | 60W | 2.5  | 655.4  | 262.16   |       |          |          |
| 3.0 FAMC   | 61A | 2.0  | 1057.4 | 528.7    |       |          |          |
| 3.0 FAMC   | 61B | 3.0  | 995.3  | 331.7666 |       |          |          |
| 3.0 FAMC   | 61C | 5.0  | 723.9  | 144.78   |       |          |          |
| 3.0 FAMC   | 61D | 3.0  | 652.1  | 217.3666 |       |          |          |
| 3.0 FAMC   | 61F | 9.0  | 2659.1 | 295.4555 |       |          |          |
| 3.0 FAMC   | 61G | 3.0  | 535.5  | 178.5    |       |          |          |
| 3.0 FAMC   | 61J | 5.0  | 2215.2 | 443.04   |       |          |          |
| 3.0 FAMC   | 61K | 3.0  | 425.5  | 141.8333 |       |          |          |
| 3.0 FAMC   | 61L | 3.1  | 945.7  | 305.0645 |       |          |          |
| 3.0 FAMC   | 61M | 5.2  | 3957.5 | 761.0576 |       |          |          |
| 3.0 FAMC   | 61P | 4.5  |        | 0        |       |          |          |
| 3.0 FAMC   | 61Q | 3.0  |        | 0        |       |          |          |
| 3.0 FAMC   | 61R | 8.0  |        | 0        |       |          |          |
| 3.0 FAMC   | 61U | 10.0 |        | 0        |       |          |          |
| 3.0 FAMC   | 61W | 0.0  |        | ERR      |       |          |          |
| 3.0 FAMC   | 61Z | 2.0  | 1191.0 | 595.5    |       |          |          |
| 3.0 FAMC   | 62A | 7.0  | 1914.0 | 273.4285 |       |          |          |
| 3.0 FAMC   | 62B | 15.0 | 2029.3 | 40440.4  | 200.8 | 135.2866 | 201.3964 |
| 3.0 FAMC   | 8N  | 1.0  |        | 0        |       |          |          |
| 3.0 FAMC   | CC  | 0.0  |        | ERR      |       |          |          |
| 3.1 DUGWAY | 61H | 0.0  |        | ERR      |       |          |          |
| 3.1 DUGWAY | 62B | 3.0  |        | 0        |       |          |          |
| 3.3 TOOELE | 60C | 0.0  |        | ERR      |       |          |          |
| 3.3 TOOELE | 60D | 1.0  |        | 0        |       |          |          |
| 3.3 TOOELE | 61H | 0.0  |        | ERR      |       |          |          |
| 3.3 TOOELE | 62B | 1.0  |        | 0        |       |          |          |
| 4.0 LAMC   | 00B | 1.0  |        | 0        |       |          |          |
| 4.0 LAMC   | 600 | 0.0  |        | ERR      |       |          |          |
| 4.0 LAMC   | 60A | 2.0  |        | 0        |       |          |          |
| 4.0 LAMC   | 60B | 3.0  |        | 0        |       |          |          |
| 4.0 LAMC   | 60C | 1.0  | 87.6   | 87.6     |       |          |          |
| 4.0 LAMC   | 60D | 0.0  | 424.3  | ERR      |       |          |          |
| 4.0 LAMC   | 60F | 1.0  | 597.0  | 597      |       |          |          |
| 4.0 LAMC   | 60G | 3.0  | 788.4  | 262.8    |       |          |          |
| 4.0 LAMC   | 60H | 5.0  | 2484.5 | 496.9    |       |          |          |
| 4.0 LAMC   | 60J | 5.0  | 576.8  | 115.36   |       |          |          |
| 4.0 LAMC   | 60K | 4.0  | 1371.5 | 342.875  |       |          |          |
| 4.0 LAMC   | 60L | 2.0  | 801.3  | 400.65   |       |          |          |
| 4.0 LAMC   | 60M | 2.0  | 325.8  | 162.9    |       |          |          |
| 4.0 LAMC   | 60N | 10.0 |        | 0        |       |          |          |
| 4.0 LAMC   | 60P | 6.0  | 633.8  | 105.6333 |       |          |          |
| 4.0 LAMC   | 60Q | 0.0  |        | ERR      |       |          |          |
| 4.0 LAMC   | 60R | 0.0  |        | ERR      |       |          |          |
| 4.0 LAMC   | 60S | 9.0  | 1339.5 | 148.8333 |       |          |          |
| 4.0 LAMC   | 60T | 2.0  | 657.3  | 328.65   |       |          |          |

|            |     |      |        |                                 |
|------------|-----|------|--------|---------------------------------|
| 4.0 LAMC   | 60U | 3.0  | 133.1  | 44.36666                        |
| 4.0 LAMC   | 60V | 5.0  | 1296.7 | 259.34                          |
| 4.0 LAMC   | 60W | 12.0 | 1083.7 | 90.30833                        |
| 4.0 LAMC   | 61A | 2.0  | 400.7  | 200.35                          |
| 4.0 LAMC   | 61B | 6.0  | 1533.5 | 255.5833                        |
| 4.0 LAMC   | 61C | 1.0  | 189.7  | 189.7                           |
| 4.0 LAMC   | 61D | 0.0  | 111.2  | ERR                             |
| 4.0 LAMC   | 61F | 10.0 | 2359.9 | 235.99                          |
| 4.0 LAMC   | 61G | 1.0  | 8.5    | 8.5                             |
| 4.0 LAMC   | 61H | 0.0  |        | ERR                             |
| 4.0 LAMC   | 61J | 3.0  | 2290.1 | 763.3666                        |
| 4.0 LAMC   | 61K | 3.0  | 1010.2 | 336.7333                        |
| 4.0 LAMC   | 61L | 2.0  | 498.0  | 249                             |
| 4.0 LAMC   | 61M | 5.3  | 2340.3 | 441.5660                        |
| 4.0 LAMC   | 61N | 2.0  | 47.1   | 23.55                           |
| 4.0 LAMC   | 61P | 2.0  |        | 0                               |
| 4.0 LAMC   | 61Q | 2.0  |        | 0                               |
| 4.0 LAMC   | 61R | 9.5  |        | 0                               |
| 4.0 LAMC   | 61U | 5.0  |        | 0                               |
| 4.0 LAMC   | 61W | 1.0  |        | 0                               |
| 4.0 LAMC   | 61Z | 3.0  | 829.0  | 276.3333                        |
| 4.0 LAMC   | 62A | 5.0  | 588.8  | 117.76                          |
| 4.0 LAMC   | 62B | 13.0 | 1623.5 | 26431.8 157.8 124.6846 167.5019 |
| 4.0 LAMC   | 69N | 2.0  |        | 0                               |
| 4.0 LAMC   | CC  | 2.0  |        | 0                               |
| 4.1 SIERRA | 61H | 0.0  |        | ERR                             |
| 4.3 SIERRA | 62B | 2.0  |        | 0                               |
| 5.0 MAMC   | 60B | 1.0  |        | 0                               |
| 5.0 MAMC   | 600 | 1.0  |        | 0                               |
| 5.0 MAMC   | 60A | 1.0  |        | 0                               |
| 5.0 MAMC   | 60B | 2.0  |        | 0                               |
| 5.0 MAMC   | 60C | 2.0  | 297.4  | 148.7                           |
| 5.0 MAMC   | 60D | 1.0  | 162.1  | 162.1                           |
| 5.0 MAMC   | 60F | 3.0  | 509.7  | 169.9                           |
| 5.0 MAMC   | 60G | 3.0  | 1907.8 | 635.9333                        |
| 5.0 MAMC   | 60H | 4.0  | 1519.9 | 379.975                         |
| 5.0 MAMC   | 60J | 9.0  | 7622.0 | 846.8888                        |
| 5.0 MAMC   | 60K | 3.0  | 1421.5 | 473.8333                        |
| 5.0 MAMC   | 60L | 3.0  | 288.5  | 96.16666                        |
| 5.0 MAMC   | 60M | 2.0  | 217.7  | 108.85                          |
| 5.0 MAMC   | 60N | 16.0 |        | 0                               |
| 5.0 MAMC   | 60P | 19.1 | 5333.1 | 279.2198                        |
| 5.0 MAMC   | 60Q | 1.0  |        | 0                               |
| 5.0 MAMC   | 60R | 1.0  |        | 0                               |
| 5.0 MAMC   | 60S | 4.0  | 578.5  | 144.625                         |
| 5.0 MAMC   | 60T | 4.0  | 1777.9 | 444.475                         |
| 5.0 MAMC   | 60U | 1.0  | 38.9   | 38.9                            |
| 5.0 MAMC   | 60V | 3.0  | 287.9  | 95.96666                        |
| 5.0 MAMC   | 60W | 5.0  | 1488.6 | 297.72                          |
| 5.0 MAMC   | 61A | 1.0  | 348.6  | 348.6                           |
| 5.0 MAMC   | 61B | 6.0  | 1257.5 | 209.5833                        |
| 5.0 MAMC   | 61C | 4.0  | 295.9  | 73.975                          |
| 5.0 MAMC   | 61D | 2.0  | 162.6  | 81.3                            |
| 5.0 MAMC   | 61F | 13.0 | 3562.1 | 274.0076                        |
| 5.0 MAMC   | 61G | 2.0  | 130.7  | 65.35                           |
| 5.0 MAMC   | 61H | 10.0 | 2437.3 | 243.73                          |

|              |     |      |         |                  |
|--------------|-----|------|---------|------------------|
| 5.0 MAMC     | 61J | 6.0  | 2367.4  | 394.5666         |
| 5.0 MAMC     | 61K | 1.0  | 540.3   | 540.3            |
| 5.0 MAMC     | 61L | 2.0  | 379.0   | 189.5            |
| 5.0 MAMC     | 61M | 6.0  | 2616.0  | 436              |
| 5.0 MAMC     | 61N |      | 94.2    | ERR              |
| 5.0 MAMC     | 61P | 2.0  |         | 0                |
| 5.0 MAMC     | 61Q | 2.0  | 0.0     | 0                |
| 5.0 MAMC     | 61R | 13.5 |         | 0                |
| 5.0 MAMC     | 61U | 5.0  |         | 0                |
| 5.0 MAMC     | 61W | 3.0  |         | 0                |
| 5.0 MAMC     | 61Z | 2.0  | 755.8   | 377.9            |
| 5.0 MAMC     | 62A | 9.0  | 2101.9  | 233.5444         |
| 5.0 MAMC     | 62B | 19.0 | 4764.3  | 250.7526         |
| 5.0 MAMC     | 8N  | 1.0  |         | 0                |
| 5.0 MAMC     | CC  | 2.0  | 45265.1 | 202.6 0 223.4210 |
| 5.1 UMATILLA | 62B | 1.0  |         | 0                |
| 5.2 YAKIMA   | 61N | 0.0  |         | ERR              |
| 5.2 YAKIMA   | 62B | 1.0  |         | 0                |
| 6.0 TAMC     | 60B | 1.0  |         | 0                |
| 6.0 TAMC     | 600 | 1.0  |         | 0                |
| 6.0 TAMC     | 60A | 1.0  |         | 0                |
| 6.0 TAMC     | 60B | 2.0  |         | 0                |
| 6.0 TAMC     | 60C | 1.0  | 529.4   | 529.4            |
| 6.0 TAMC     | 60D |      | 327.2   | ERR              |
| 6.0 TAMC     | 60F | 3.0  | 226.3   | 75.43333         |
| 6.0 TAMC     | 60G | 3.0  | 1218.4  | 406.1333         |
| 6.0 TAMC     | 60H | 4.0  | 1337.2  | 334.3            |
| 6.0 TAMC     | 60J | 12.0 | 10299.2 | 858.2666         |
| 6.0 TAMC     | 60K | 5.0  | 1017.9  | 203.58           |
| 6.0 TAMC     | 60L | 2.0  | 213.3   | 106.65           |
| 6.0 TAMC     | 60M | 2.0  | 130.8   | 65.4             |
| 6.0 TAMC     | 60N | 20.0 |         | 0                |
| 6.0 TAMC     | 60P | 16.2 | 7121.5  | 439.5987         |
| 6.0 TAMC     | 60Q | 1.0  |         | 0                |
| 6.0 TAMC     | 60R | 1.0  |         | 0                |
| 6.0 TAMC     | 60S | 6.2  | 476.4   | 76.83870         |
| 6.0 TAMC     | 60T | 10.0 | 1461.0  | 146.1            |
| 6.0 TAMC     | 60U | 2.0  | 193.2   | 96.6             |
| 6.0 TAMC     | 60V | 3.0  | 267.1   | 89.03333         |
| 6.0 TAMC     | 60W | 17.3 | 2907.3  | 168.5391         |
| 6.0 TAMC     | 61A | 2.0  | 347.5   | 173.75           |
| 6.0 TAMC     | 61B | 5.0  | 615.2   | 123.04           |
| 6.0 TAMC     | 61C | 2.0  | 162.3   | 81.15            |
| 6.0 TAMC     | 61D | 1.0  | 76.7    | 76.7             |
| 6.0 TAMC     | 61F | 12.0 | 2443.0  | 203.5833         |
| 6.0 TAMC     | 61G | 2.0  | 205.3   | 102.65           |
| 6.0 TAMC     | 61H | 2.2  | 1599.2  | 730.2283         |
| 6.0 TAMC     | 61J | 4.2  | 3203.9  | 762.8333         |
| 6.0 TAMC     | 61K | 2.0  | 319.2   | 159.6            |
| 6.0 TAMC     | 61L | 2.0  | 518.5   | 259.25           |
| 6.0 TAMC     | 61M | 16.0 | 4031.2  | 251.95           |
| 6.0 TAMC     | 61N | 0.0  | 285.1   | ERR              |
| 6.0 TAMC     | 61P | 2.0  | 0.0     | 0                |
| 6.0 TAMC     | 61Q | 2.0  |         | 0                |
| 6.0 TAMC     | 61R | 10.0 |         | 0                |
| 6.0 TAMC     | 61U | 7.0  |         | 0                |

|                  |     |      |         |                   |
|------------------|-----|------|---------|-------------------|
| 6.0 TAMC         | 61W | 0.1  |         | 0                 |
| 6.0 TAMC         | 61Z | 2.0  | 606.4   | 303.2             |
| 6.0 TAMC         | 62A | 7.0  | 3173.7  | 453.3857          |
| 6.0 TAMC         | 62B | 5.0  | 3554.2  | 710.84            |
| 6.0 TAMC         | 63N | 1.0  |         | 0                 |
| 6.0 TAMC         | CC  | 1.0  | 48867.6 | 217.17 0 225.0200 |
| 6.1 SCHOFIELD60A |     | 0.0  |         | ERR               |
| 6.1 SCHOFIELD60P |     | 1.0  |         | 0                 |
| 6.1 SCHOFIELD60W |     | 1.0  |         | 0                 |
| 6.1 SCHOFIELD61F |     | 0.0  |         | ERR               |
| 6.1 SCHOFIELD61H |     | 10.0 |         | 0                 |
| 6.1 SCHOFIELD61N |     | 1.0  |         | 0                 |
| 6.1 SCHOFIELD61R |     | 0.0  |         | ERR               |
| 6.1 SCHOFIELD62A |     | 0.0  |         | ERR               |
| 6.1 SCHOFIELD62B |     | 3.0  |         | 0                 |
| 7.0 WBAMC        | 60B | 1.0  |         | 0                 |
| 7.0 WBAMC        | 600 | 0.0  |         | ERR               |
| 7.0 WBAMC        | 60A | 1.0  |         | 0                 |
| 7.0 WBAMC        | 60B | 3.0  |         | 0                 |
| 7.0 WBAMC        | 60C | 3.0  | 392.0   | 130.6666          |
| 7.0 WBAMC        | 60D | 0.0  | 243.9   | ERR               |
| 7.0 WBAMC        | 60F | 2.0  | 304.0   | 152               |
| 7.0 WBAMC        | 60G | 4.0  | 454.4   | 113.6             |
| 7.0 WBAMC        | 60H | 3.0  | 1806.9  | 602.3             |
| 7.0 WBAMC        | 60J | 8.3  | 9861.4  | 1183.841          |
| 7.0 WBAMC        | 60K | 3.0  | 1048.3  | 349.4333          |
| 7.0 WBAMC        | 60L | 2.1  | 245.0   | 117.7884          |
| 7.0 WBAMC        | 60M | 2.0  | 135.5   | 67.75             |
| 7.0 WBAMC        | 60N | 16.0 |         | 0                 |
| 7.0 WBAMC        | 60P | 20.0 | 4737.5  | 236.875           |
| 7.0 WBAMC        | 60Q | 1.0  |         | 0                 |
| 7.0 WBAMC        | 60R | 0.0  |         | ERR               |
| 7.0 WBAMC        | 60S | 5.0  | 668.2   | 133.64            |
| 7.0 WBAMC        | 60T | 2.0  | 496.3   | 248.15            |
| 7.0 WBAMC        | 60U | 0.0  | 0.0     | ERR               |
| 7.0 WBAMC        | 60V | 3.0  | 428.6   | 142.8666          |
| 7.0 WBAMC        | 60W | 7.0  | 1770.5  | 252.9285          |
| 7.0 WBAMC        | 61A | 2.0  | 491.8   | 245.9             |
| 7.0 WBAMC        | 61B | 2.0  | 922.1   | 461.05            |
| 7.0 WBAMC        | 61C | 2.0  | 290.0   | 145               |
| 7.0 WBAMC        | 61D | 1.2  | 187.9   | 156.5             |
| 7.0 WBAMC        | 61F | 11.0 | 4935.6  | 448.6909          |
| 7.0 WBAMC        | 61G | 2.0  | 202.9   | 101.45            |
| 7.0 WBAMC        | 61H | 6.0  | 0.0     | 0                 |
| 7.0 WBAMC        | 61J | 5.0  | 2531.1  | 506.22            |
| 7.0 WBAMC        | 61K | 1.0  | 301.3   | 301.3             |
| 7.0 WBAMC        | 61L | 3.0  | 826.0   | 275.3333          |
| 7.0 WBAMC        | 61M | 9.0  | 2096.5  | 232.9444          |
| 7.0 WBAMC        | 61N | 1.0  | 41.8    | 41.8              |
| 7.0 WBAMC        | 61P | 2.0  | 0.0     | 0                 |
| 7.0 WBAMC        | 61R | 6.0  |         | 0                 |
| 7.0 WBAMC        | 61U | 6.0  |         | 0                 |
| 7.0 WBAMC        | 61W | 1.0  |         | 0                 |
| 7.0 WBAMC        | 61Z | 3.0  | 497.8   | 165.9333          |
| 7.0 WBAMC        | 62A | 5.5  | 925.7   | 168.3090          |
| 7.0 WBAMC        | 62B | 13.0 | 5202.1  | 400.1615          |

|              |     |      |         |        |          |          |
|--------------|-----|------|---------|--------|----------|----------|
| 7.0 WBAMC    | 8N  | 0.0  | 42045   | 171.11 | ERR      | 245.7191 |
| 7.0 WBAMC    | CC  | 0.0  |         |        | ERR      |          |
| 7.1 MCAFEE   | 62B | 3.0  |         |        | 0        |          |
| 8.0 WRAMC    | 00B | 4.0  |         |        | 0        |          |
| 8.0 WRAMC    | 600 | 8.0  |         |        | 0        |          |
| 8.0 WRAMC    | 60A | 1.0  |         |        | 0        |          |
| 8.0 WRAMC    | 60B | 4.0  |         |        | 0        |          |
| 8.0 WRAMC    | 60C | 1.0  | 549.7   |        | 549.7    |          |
| 8.0 WRAMC    | 60D | 2.0  | 1357.9  |        | 778.95   |          |
| 8.0 WRAMC    | 60F | 8.0  | 609.4   |        | 76.175   |          |
| 8.0 WRAMC    | 60G | 6.0  | 5465.3  |        | 910.8833 |          |
| 8.0 WRAMC    | 60H | 12.0 | 3392.5  |        | 282.7083 |          |
| 8.0 WRAMC    | 60J | 12.1 | 6644.1  |        | 549.0991 |          |
| 8.0 WRAMC    | 60K | 4.0  | 3433.2  |        | 858.3    |          |
| 8.0 WRAMC    | 60L | 7.0  | 827.8   |        | 118.2571 |          |
| 8.0 WRAMC    | 60M | 4.0  | 226.5   |        | 56.625   |          |
| 8.0 WRAMC    | 60N | 30.0 |         |        | 0        |          |
| 8.0 WRAMC    | 60P | 22.0 | 5288.9  |        | 240.4045 |          |
| 8.0 WRAMC    | 60Q | 3.0  |         |        | 0        |          |
| 8.0 WRAMC    | 60R | 3.0  |         |        | 0        |          |
| 8.0 WRAMC    | 60S | 6.0  | 1935.8  |        | 322.6333 |          |
| 8.0 WRAMC    | 60T | 4.0  | 3035.0  |        | 758.75   |          |
| 8.0 WRAMC    | 60U | 4.0  | 202.9   |        | 50.725   |          |
| 8.0 WRAMC    | 60V | 7.0  | 2264.1  |        | 323.4428 |          |
| 8.0 WRAMC    | 60W | 12.3 | 4172.1  |        | 339.1951 |          |
| 8.0 WRAMC    | 61A | 3.0  | 1336.8  |        | 445.6    |          |
| 8.0 WRAMC    | 61B | 12.0 | 2884.6  |        | 240.3833 |          |
| 8.0 WRAMC    | 61C | 9.0  | 1041.3  |        | 115.7    |          |
| 8.0 WRAMC    | 61D | 7.0  | 508.3   |        | 72.61428 |          |
| 8.0 WRAMC    | 61F | 21.0 | 8459.2  |        | 402.8190 |          |
| 8.0 WRAMC    | 61G | 5.0  | 420.5   |        | 84.1     |          |
| 8.0 WRAMC    | 61H | 21.4 | 0.0     |        | 0        |          |
| 8.0 WRAMC    | 61J | 11.0 | 3992.6  |        | 362.9636 |          |
| 8.0 WRAMC    | 61K | 3.0  | 2215.3  |        | 738.4333 |          |
| 8.0 WRAMC    | 61L | 4.0  | 1052.0  |        | 263      |          |
| 8.0 WRAMC    | 61M | 4.0  | 3930.6  |        | 982.65   |          |
| 8.0 WRAMC    | 61N | 1.0  | 15.5    |        | 15.5     |          |
| 8.0 WRAMC    | 61P | 5.0  | 0.0     |        | 0        |          |
| 8.0 WRAMC    | 61Q | 5.0  |         |        | 0        |          |
| 8.0 WRAMC    | 61R | 16.1 |         |        | 0        |          |
| 8.0 WRAMC    | 61U | 12.0 |         |        | 0        |          |
| 8.0 WRAMC    | 61W | 2.0  |         |        | 0        |          |
| 8.0 WRAMC    | 61Z | 6.0  | 1915.8  |        | 319.3    |          |
| 8.0 WRAMC    | 62A | 3.0  | 862.9   |        | 297.6333 |          |
| 8.0 WRAMC    | 62B | 13.0 | 3294.0  |        | 253.3846 |          |
| 8.0 WRAMC    | 8N  | 2.0  | 71534.6 | 338.9  | 0        | 211.0787 |
| 8.0 WRAMC    | CC  | 0.0  |         |        | ERR      |          |
| 8.2 PENTAGON | 60A | 1.0  |         |        | 0        |          |
| 8.2 PENTAGON | 60L | 0.0  |         |        | ERR      |          |
| 8.2 PENTAGON | 61F | 1.0  |         |        | 0        |          |
| 8.2 PENTAGON | 61H | 0.0  |         |        | ERR      |          |
| 8.2 PENTAGON | 61N | 1.0  |         |        | 0        |          |
| 8.2 PENTAGON | 62B | 3.0  |         |        | 0        |          |
| 8.3 RADER    | 60A | 1.0  |         |        | 0        |          |
| 8.3 RADER    | 60D | 0.0  |         |        | ERR      |          |
| 8.3 RADER    | 60J | 0.0  |         |        | ERR      |          |

|                |     |      |        |                        |
|----------------|-----|------|--------|------------------------|
| 8.3 RADER      | 60L | 0.0  |        | ERR                    |
| 8.3 RADER      | 60P | 0.0  |        | ERR                    |
| 8.3 RADER      | 61F | 0.0  |        | ERR                    |
| 8.3 RADER      | 61H | 9.0  |        | ERR                    |
| 8.3 RADER      | 61M | 0.0  |        | ERR                    |
| 8.3 RADER      | 62B | 5.0  |        | 0                      |
| 9.0 ALASKA     | 600 | 2.0  |        | 0                      |
| 9.0 ALASKA     | 60A | 2.0  |        | 0                      |
| 9.0 ALASKA     | 60C | 1.0  | 303.6  | 303.6                  |
| ALASKA         | 60D |      | 99.5   | ERR                    |
| 9.0 ALASKA     | 60J | 3.0  | 1033.1 | 344.3666               |
| 9.0 ALASKA     | 60K | 0.0  |        | ERR                    |
| 9.0 ALASKA     | 60N | 3.0  |        | 0                      |
| 9.0 ALASKA     | 60P | 3.0  | 935.8  | 311.9333               |
| 9.0 ALASKA     | 60S | 0.0  | 5.6    | ERR                    |
| 9.0 ALASKA     | 60T | 1.0  | 308.9  | 308.9                  |
| ALASKA         | 60U |      | 0.0    | ERR                    |
| ALASKA         | 60V |      | 2.2    | ERR                    |
| 9.0 ALASKA     | 60W | 0.0  | 287.7  | ERR                    |
| 9.0 ALASKA     | 61F | 2.5  | 494.5  | 197.8                  |
| 9.0 ALASKA     | 61H | 0.0  |        | ERR                    |
| 9.0 ALASKA     | 61J | 2.0  | 496.5  | 248.25                 |
| 9.0 ALASKA     | 61M | 3.0  | 667.0  | 222.3333               |
| ALASKA         | 61N |      | 136.6  | ERR                    |
| 9.0 ALASKA     | 61R | 1.0  |        | 0                      |
| 9.0 ALASKA     | 61U | 1.0  |        | 0                      |
| 9.0 ALASKA     | 62A | 3.0  | 587.8  | 195.9333               |
| 9.0 ALASKA     | 62B | 3.0  | 1622.5 | 6981.3                 |
|                |     |      |        | 36.5 540.8333 191.2684 |
| 9.1 GREELY     | 600 | 0.0  |        | ERR                    |
| 9.1 GREELY     | 61H | 0.0  |        | ERR                    |
| 9.1 GREELY     | 61N | 1.0  |        | 0                      |
| 9.1 GREELY     | 62B | 2.0  |        | 0                      |
| 9.2 RICHARDSON | 600 | 1.0  |        | 0                      |
| 9.2 RICHARDSON | 61H | 0.0  |        | ERR                    |
| 9.2 RICHARDSON | 61N | 1.0  |        | 0                      |
| 9.2 RICHARDSON | 62B | 1.0  |        | 0                      |
| 10.0 BELVOIR   | 600 | 2.0  |        | 0                      |
| 10.0 BELVOIR   | 60A | 2.0  |        | 0                      |
| BELVOIR        | 60C |      | 95.0   | ERR                    |
| 10.0 BELVOIR   | 60D | 1.0  | 169.9  | 169.9                  |
| 10.0 BELVOIR   | 60H | 1.0  | 48.9   | 48.9                   |
| 10.0 BELVOIR   | 60J | 11.6 | 2115.2 | 182.3448               |
| 10.0 BELVOIR   | 60K | 2.0  | 365.0  | 182.5                  |
| 10.0 BELVOIR   | 60L | 2.0  | 237.0  | 118.5                  |
| 10.0 BELVOIR   | 60M | 1.0  | 154.2  | 154.2                  |
| 10.0 BELVOIR   | 60N | 6.0  |        | 0                      |
| 10.0 BELVOIR   | 60P | 7.0  | 1747.7 | 249.6714               |
| 10.0 BELVOIR   | 60S | 3.0  | 117.0  | 39                     |
| 10.0 BELVOIR   | 60T | 1.0  | 0.0    | 0                      |
| 10.0 BELVOIR   | 60U | 0.0  | 0.0    | ERR                    |
| 10.0 BELVOIR   | 60V | 1.5  | 96.2   | 64.13333               |
| 10.0 BELVOIR   | 60W | 3.0  | 340.0  | 113.3333               |
| 10.0 BELVOIR   | 61F | 7.0  | 1932.8 | 276.1142               |
| 10.0 BELVOIR   | 61H | 33.0 | 2070.9 | 62.75454               |
| 10.0 BELVOIR   | 61J | 5.0  | 1167.4 | 233.88                 |
| 10.0 BELVOIR   | 61M | 6.0  | 1381.8 | 230.3                  |

|      |           |     |      |        |                         |
|------|-----------|-----|------|--------|-------------------------|
| 10.0 | BELVOIR   | 61N | 1.0  | 72.6   | 72.6                    |
| 10.0 | BELVOIR   | 61R | 3.0  |        | 0                       |
| 10.0 | BELVOIR   | 61U | 2.0  |        | 0                       |
| 10.0 | BELVOIR   | 62A | 4.0  | 1590.5 | 1590.5                  |
| 10.0 | BELVOIR   | 62B | 15.0 | 1859.8 | 15563.9                 |
| 10.1 | A P HILL  | 62B | 0.0  |        | 118.1 123.9866 131.7857 |
| 10.2 | VINT HILL | 61H | 1.0  |        | ERR                     |
| 11.0 | BENNING   | 600 | 9.0  |        | 0                       |
| 11.0 | BENNING   | 60A | 2.0  |        | 0                       |
| 11.0 | BENNING   | 60B | 0.0  |        | ERR                     |
| 11.0 | BENNING   | 60C | 1.0  | 376.0  | 376                     |
| 11.0 | BENNING   | 60D | 0.0  | 258.8  | ERR                     |
| 11.0 | BENNING   | 60F | 0.0  | 1608.5 | ERR                     |
| 11.0 | BENNING   | 60G | 1.2  | 155.1  | 129.25                  |
| 11.0 | BENNING   | 60H | 0.1  | 246.5  | 2465                    |
| 11.0 | BENNING   | 60J | 7.0  | 3252.2 | 464.6                   |
| 11.0 | BENNING   | 60K | 2.0  | 528.4  | 264.2                   |
| 11.0 | BENNING   | 60L | 1.0  | 95.8   | 95.8                    |
| 11.0 | BENNING   | 60M | 1.0  | 49.4   | 49.4                    |
| 11.0 | BENNING   | 60N | 7.0  |        | 0                       |
| 11.0 | BENNING   | 60P | 8.0  | 2055.5 | 256.9375                |
| 11.0 | BENNING   | 60S | 2.3  | 379.0  | 168.4444                |
| 11.0 | BENNING   | 60T | 1.0  | 348.0  | 348                     |
| 11.0 | BENNING   | 60U | 0.0  | 0.0    | ERR                     |
| 11.0 | BENNING   | 60V | 1.2  | 113.5  | 94.58333                |
| 11.0 | BENNING   | 60W | 5.7  | 637.2  | 111.2041                |
| 11.0 | BENNING   | 61B | 0.0  | 61.1   | ERR                     |
| 11.0 | BENNING   | 61F | 9.0  | 2541.7 | 282.4111                |
|      | BENNING   | 61G |      | 128.4  | ERR                     |
| 11.0 | BENNING   | 61H | 17.0 | 4689.2 | 275.8332                |
| 11.0 | BENNING   | 61J | 4.0  | 964.1  | 241.025                 |
| 11.0 | BENNING   | 61M | 4.3  | 1935.2 | 450.0465                |
| 11.0 | BENNING   | 61N | 2.0  | 127.2  | 63.6                    |
| 11.0 | BENNING   | 61R | 2.0  |        | 0                       |
| 11.0 | BENNING   | 61U | 3.0  |        | 0                       |
| 11.0 | BENNING   | 62A | 1.0  | 1631.5 | 1631.5                  |
| 11.0 | BENNING   | 62B | 10.3 | 4440.4 | 26622.7                 |
|      |           |     |      | 102.08 | 431.1067 260.8023       |
| 12.0 | BRAGG     | 600 | 9.0  |        | 0                       |
| 12.0 | BRAGG     | 60A | 2.0  |        | 0                       |
| 12.0 | BRAGG     | 60B | 0.1  |        | 0                       |
| 12.0 | BRAGG     | 60C | 2.0  | 286.9  | 143.45                  |
| 12.0 | BRAGG     | 60D | 0.0  | 683.1  | ERR                     |
| 12.0 | BRAGG     | 60F | 1.0  | 21.1   | 21.1                    |
| 12.0 | BRAGG     | 60G | 1.3  | 89.7   | 69                      |
| 12.0 | BRAGG     | 60H | 1.4  | 347.3  | 251.6666                |
| 12.0 | BRAGG     | 60J | 8.0  | 3522.7 | 440.3375                |
| 12.0 | BRAGG     | 60K | 2.0  | 536.4  | 268.2                   |
| 12.0 | BRAGG     | 60L | 1.0  | 265.5  | 265.5                   |
| 12.0 | BRAGG     | 60M | 1.0  | 78.3   | 78.3                    |
| 12.0 | BRAGG     | 60N | 11.0 |        | 0                       |
| 12.0 | BRAGG     | 60P | 10.0 | 3578.0 | 357.8                   |
| 12.0 | BRAGG     | 60S | 5.0  | 598.8  | 119.76                  |
| 12.0 | BRAGG     | 60T | 2.0  | 781.0  | 390.5                   |
| 12.0 | BRAGG     | 60U | 1.0  | 0.0    | 0                       |
| 12.0 | BRAGG     | 60V | 9.0  | 135.7  | 15.07777                |
| 12.0 | BRAGG     | 60W | 5.0  | 1621.3 | 324.26                  |

|      |          |     |      |        |                                 |
|------|----------|-----|------|--------|---------------------------------|
| 12.0 | BRAGG    | 61B | 2.0  | 147.8  | 73.9                            |
|      | BRAGG    | 61C |      | 0.5    | ERR                             |
| 12.0 | BRAGG    | 61F | 10.0 | 2781.6 | 278.16                          |
|      | BRAGG    | 61G |      | 536.9  | ERR                             |
| 12.0 | BRAGG    | 61H | 21.0 | 5053.9 | 240.6619                        |
| 12.0 | BRAGG    | 61J | 6.0  | 2335.6 | 389.2666                        |
| 12.0 | BRAGG    | 61M | 9.0  | 3193.6 | 354.8444                        |
| 12.0 | BRAGG    | 61N | 2.0  | 432.9  | 216.45                          |
| 12.0 | BRAGG    | 61P | 1.0  | 27.9   | 27.9                            |
| 12.0 | BRAGG    | 61R | 5.0  |        | 0                               |
| 12.0 | BRAGG    | 61U | 4.0  |        | 0                               |
| 12.0 | BRAGG    | 61Z | 0.0  |        | ERR                             |
| 12.0 | BRAGG    | 62A | 5.5  | 2143.0 | 389.6363                        |
| 12.0 | BRAGG    | 62B | 22.0 | 5853.5 | 35053 159.28 266.0681 220.0715  |
| 13.0 | CAMPBELL | 600 | 4.0  |        | 0                               |
| 13.0 | CAMPBELL | 60A | 2.0  |        | 0                               |
| 13.0 | CAMPBELL | 60C | 1.0  | 378.5  | 378.5                           |
| 13.0 | CAMPBELL | 60D | 1.0  | 249.9  | 249.9                           |
| 13.0 | CAMPBELL | 60J | 10.0 | 2833.8 | 283.38                          |
| 13.0 | CAMPBELL | 60K | 1.0  | 598.5  | 598.5                           |
| 13.0 | CAMPBELL | 60L | 1.0  | 176.4  | 176.4                           |
| 13.0 | CAMPBELL | 60M | 1.0  | 30.9   | 30.9                            |
| 13.0 | CAMPBELL | 60N | 1.0  |        | 0                               |
| 13.0 | CAMPBELL | 60P | 9.3  | 2230.3 | 239.8172                        |
| 13.0 | CAMPBELL | 60S | 1.0  | 115.6  | 115.6                           |
| 13.0 | CAMPBELL | 60T | 2.0  | 377.1  | 188.55                          |
| 13.0 | CAMPBELL | 60U | 1.0  | 0.0    | 0                               |
| 13.0 | CAMPBELL | 60V | 0.0  | 1.8    | ERR                             |
| 13.0 | CAMPBELL | 60W | 2.0  | 1187.7 | 593.85                          |
| 13.0 | CAMPBELL | 61B | 1.0  |        | 0                               |
| 13.0 | CAMPBELL | 61F | 7.0  | 1694.9 | 242.1285                        |
| 13.0 | CAMPBELL | 61H | 9.0  | 2451.0 | 272.3333                        |
| 13.0 | CAMPBELL | 61J | 4.0  | 1134.5 | 283.625                         |
| 13.0 | CAMPBELL | 61M | 4.0  | 1498.1 | 374.525                         |
| 13.0 | CAMPBELL | 61N | 1.0  | 373.5  | 373.5                           |
|      | CAMPBELL | 61P |      | 97.9   | ERR                             |
| 13.0 | CAMPBELL | 61R | 3.0  |        | 0                               |
| 13.0 | CAMPBELL | 61U | 2.0  |        | 0                               |
| 13.0 | CAMPBELL | 62A | 6.5  | 1527.6 | 235.0153                        |
| 13.0 | CAMPBELL | 62B | 6.5  | 4831.1 | 21789.1 81.25 749.0077 268.1735 |
| 14.0 | CARSON   | 600 | 0.0  |        | ERR                             |
| 14.0 | CARSON   | 60A | 2.0  |        | 0                               |
| 14.0 | CARSON   | 60C | 1.0  | 688.5  | 688.5                           |
|      | CARSON   | 60D |      | 421.7  | ERR                             |
| 14.0 | CARSON   | 60F | 0.4  | 0.0    | 0                               |
| 14.0 | CARSON   | 60G | 0.3  | 101.2  | 337.3333                        |
| 14.0 | CARSON   | 60H | 0.6  | 73.5   | 122.5                           |
| 14.0 | CARSON   | 60J | 10.2 | 3341.4 | 327.5882                        |
| 14.0 | CARSON   | 60K | 1.0  | 563.3  | 563.3                           |
| 14.0 | CARSON   | 60L | 1.0  | 194.6  | 194.6                           |
| 14.0 | CARSON   | 60M | 1.0  | 36.2   | 36.2                            |
| 14.0 | CARSON   | 60N | 7.0  |        | 0                               |
| 14.0 | CARSON   | 60P | 15.0 | 1845.1 | 123.0066                        |
| 14.0 | CARSON   | 60Q | 0.4  |        | 0                               |
| 14.0 | CARSON   | 60S | 3.7  | 241.2  | 65.54347                        |
| 14.0 | CARSON   | 60T | 1.7  | 332.6  | 192.3699                        |

|      |        |     |      |        |          |       |          |          |
|------|--------|-----|------|--------|----------|-------|----------|----------|
| 14.0 | CARSON | 60U | 0.0  | 105.0  | ERR      |       |          |          |
| 14.0 | CARSON | 60V | 0.0  | 0.0    | ERR      |       |          |          |
| 14.0 | CARSON | 60W | 4.2  | 857.1  | 204.0714 |       |          |          |
| 14.0 | CARSON | 61B | 1.5  | 53.6   | 35.73333 |       |          |          |
| 14.0 | CARSON | 61F | 9.1  | 1736.7 | 190.8461 |       |          |          |
| 14.0 | CARSON | 61H | 6.0  | 1076.6 | 179.4333 |       |          |          |
| 14.0 | CARSON | 61J | 5.0  | 1987.0 | 397.4    |       |          |          |
| 14.0 | CARSON | 61M | 5.2  | 1524.4 | 293.1538 |       |          |          |
| 14.0 | CARSON | 61N | 0.0  | 233.0  | ERR      |       |          |          |
| 14.0 | CARSON | 61R | 1.0  |        | 0        |       |          |          |
| 14.0 | CARSON | 61U | 2.0  |        | 0        |       |          |          |
| 14.0 | CARSON | 62A | 3.0  | 1824.1 | 608.0333 |       |          |          |
| 14.0 | CARSON | 62B | 13.0 | 2859.6 | 20096.6  | 95.31 | 219.9692 | 210.8551 |
| 15.0 | DEVENS | 60A | 2.0  |        | 0        |       |          |          |
| 15.0 | DEVENS | 60C | 0.0  | 205.4  | ERR      |       |          |          |
| 15.0 | DEVENS | 60D | 1.0  | 81.9   | 81.9     |       |          |          |
| 15.0 | DEVENS | 60J | 0.4  | 164.9  | 412.25   |       |          |          |
| 15.0 | DEVENS | 60K | 2.0  | 212.1  | 106.05   |       |          |          |
| 15.0 | DEVENS | 60L | 1.0  | 103.4  | 103.4    |       |          |          |
| 15.0 | DEVENS | 60M | 0.2  | 80.4   | 402      |       |          |          |
| 15.0 | DEVENS | 60N | 3.0  |        | 0        |       |          |          |
| 15.0 | DEVENS | 60P | 3.0  | 504.5  | 168.1666 |       |          |          |
| 15.0 | DEVENS | 60S | 1.0  | 248.3  | 248.3    |       |          |          |
| 15.0 | DEVENS | 60T | 0.2  | 75.2   | 376      |       |          |          |
| 15.0 | DEVENS | 60V | 0.2  | 17.7   | 88.5     |       |          |          |
| 15.0 | DEVENS | 60W | 1.0  | 369.7  | 369.7    |       |          |          |
| 15.0 | DEVENS | 61F | 4.0  | 1446.1 | 361.525  |       |          |          |
| 15.0 | DEVENS | 61H | 3.0  |        | 0        |       |          |          |
| 15.0 | DEVENS | 61J | 2.1  | 555.7  | 264.6190 |       |          |          |
| 15.0 | DEVENS | 61M | 3.0  | 617.5  | 205.8333 |       |          |          |
| 15.0 | DEVENS | 61N | 1.0  | 10.1   | 10.1     |       |          |          |
| 15.0 | DEVENS | 61R | 1.5  |        | 0        |       |          |          |
| 15.0 | DEVENS | 61U | 1.0  |        | 0        |       |          |          |
| 15.0 | DEVENS | 62A | 4.2  | 645.2  | 153.6190 |       |          |          |
| 15.0 | DEVENS | 62B | 9.0  | 1411.0 | 6749.1   | 43.8  | 156.7777 | 154.0890 |
| 16.0 | DRUM   | 600 | 1.0  |        | 0        |       |          |          |
| 16.0 | DRUM   | 60A | 1.0  |        | 0        |       |          |          |
| 16.0 | DRUM   | 60C | 0.0  | 180.1  | ERR      |       |          |          |
| 16.0 | DRUM   | 60D | 1.5  | 372.9  | 248.6    |       |          |          |
| 16.0 | DRUM   | 60H | 0.0  |        | ERR      |       |          |          |
| 16.0 | DRUM   | 60J | 0.5  | 61.8   | 123.6    |       |          |          |
| 16.0 | DRUM   | 60L | 0.3  | 52.8   | 176      |       |          |          |
| 16.0 | DRUM   | 60M | 0.0  |        | ERR      |       |          |          |
| 16.0 | DRUM   | 60P | 0.0  | 4.6    | ERR      |       |          |          |
| 16.0 | DRUM   | 60T | 0.5  |        | 0        |       |          |          |
| 16.0 | DRUM   | 60W | 0.0  | 266.7  | ERR      |       |          |          |
| 16.0 | DRUM   | 61H | 13.0 | 991.5  | 76.26923 |       |          |          |
| 16.0 | DRUM   | 61M | 1.5  | 177.5  | 118.3333 |       |          |          |
|      | DRUM   | 61N |      | 10.0   | ERR      |       |          |          |
| 16.0 | DRUM   | 61P | 1.0  |        | 0        |       |          |          |
| 16.0 | DRUM   | 61R | 1.5  |        | 0        |       |          |          |
| 16.0 | DRUM   | 62A | 4.2  | 683.1  | 162.6428 |       |          |          |
| 16.0 | DRUM   | 62B | 1.0  | 1487.4 | 4268.4   | 29    | 1487.4   | 147.8758 |
| 16.1 | SENECA | 62B | 2.0  |        | 0        |       |          |          |
| 17.0 | DIX    | 600 | 3.0  |        | 0        |       |          |          |
| 17.0 | DIX    | 60A | 2.0  |        | 0        |       |          |          |

|             |     |      |                |                         |
|-------------|-----|------|----------------|-------------------------|
| 17.0 DIX    | 60C | 1.0  | 209.8          | 209.8                   |
| 17.0 DIX    | 60D | 1.0  | 237.4          | 237.4                   |
| 17.0 DIX    | 60F | 0.0  | 0.0            | ERR                     |
| 17.0 DIX    | 60G | 0.0  | 0.0            | ERR                     |
| 17.0 DIX    | 60H | 0.5  | 153.4          | 306.8                   |
| 17.0 DIX    | 60J | 4.0  | 598.4          | 149.6                   |
| 17.0 DIX    | 60K | 1.0  | 467.9          | 467.9                   |
| 17.0 DIX    | 60L | 1.0  | 185.4          | 185.4                   |
| 17.0 DIX    | 60M | 1.0  | 60.3           | 60.3                    |
| 17.0 DIX    | 60N | 6.0  |                | 0                       |
| 17.0 DIX    | 60P | 9.0  | 700.9          | 77.87777                |
| 17.0 DIX    | 60R | 0.0  |                | ERR                     |
| 17.0 DIX    | 60S | 4.0  | 242.6          | 60.65                   |
| 17.0 DIX    | 60T | 0.0  | 0.4            | ERR                     |
| 17.0 DIX    | 60V | 1.0  | 91.7           | 91.7                    |
| 17.0 DIX    | 60W | 2.0  | 768.2          | 384.1                   |
| 17.0 DIX    | 61F | 7.0  | 3171.5         | 453.0714                |
| 17.0 DIX    | 61H | 3.0  | 431.7          | 143.9                   |
| 17.0 DIX    | 61J | 3.0  | 913.0          | 304.3333                |
| 17.0 DIX    | 61M | 4.0  | 1179.1         | 294.525                 |
| 17.0 DIX    | 61N | 2.0  | 11.1           | 5.55                    |
| 17.0 DIX    | 61P |      | 42.3           | ERR                     |
| 17.0 DIX    | 61R | 2.5  |                | 0                       |
| 17.0 DIX    | 61U | 1.0  |                | 0                       |
| 17.0 DIX    | 62A | 1.0  | 967.3          | 967.3                   |
| 17.0 DIX    | 62B | 11.2 | 3725.4 14156.8 | 71.2 332.625 198.8314   |
| 18.0 EUSTIS | 600 | 0.0  |                | ERR                     |
| 18.0 EUSTIS | 60A | 2.0  |                | 0                       |
| 18.0 EUSTIS | 60C | 0.0  | 450.3          | ERR                     |
| 18.0 EUSTIS | 60D | 0.0  | 109.5          | ERR                     |
| 18.0 EUSTIS | 60F | 0.1  | 7.5            | 75                      |
| 18.0 EUSTIS | 60H | 0.1  | 0.1            | 1                       |
| 18.0 EUSTIS | 60J | 0.6  | 393.7          | 656.1666                |
| 18.0 EUSTIS | 60K | 1.3  | 299.3          | 239.44                  |
| 18.0 EUSTIS | 60L | 1.0  | 215.8          | 215.8                   |
| 18.0 EUSTIS | 60M | 0.0  | 29.7           | ERR                     |
| 18.0 EUSTIS | 60N | 3.0  |                | 0                       |
| 18.0 EUSTIS | 60P | 7.8  | 918.0          | 118.2989                |
| 18.0 EUSTIS | 60S | 1.1  | 7.9            | 7.181818                |
| 18.0 EUSTIS | 60T | 1.0  | 491.7          | 468.2857                |
| 18.0 EUSTIS | 60W | 1.5  | 452.2          | 301.4666                |
| 18.0 EUSTIS | 61F | 4.0  | 1435.2         | 358.8                   |
| 18.0 EUSTIS | 61H | 0.0  |                | ERR                     |
| 18.0 EUSTIS | 61J | 2.2  | 491.8          | 223.5454                |
| 18.0 EUSTIS | 61M | 3.0  | 595.9          | 198.6333                |
| 18.0 EUSTIS | 61N | 1.0  | 100.8          | 100.8                   |
| 18.0 EUSTIS | 61R | 2.0  |                | 0                       |
| 18.0 EUSTIS | 61U | 1.0  |                | 0                       |
| 18.0 EUSTIS | 62A | 0.0  | 1231.5         | ERR                     |
| 18.0 EUSTIS | 62B | 14.0 | 2273.8 9504.7  | 51.66 162.4142 183.9856 |
| 18.1 MONROE | 60A | 1.0  |                | 0                       |
| 18.1 MONROE | 61N | 1.0  |                | 0                       |
| 18.1 MONROE | 62B | 3.0  |                | 0                       |
| 19.0 HOOD   | 600 | 2.0  |                | 0                       |
| 19.0 HOOD   | 60A | 2.0  |                | 0                       |
| 19.0 HOOD   | 60B | 1.0  |                | 0                       |

|                   |              |      |        |          |        |          |          |
|-------------------|--------------|------|--------|----------|--------|----------|----------|
| 19.0 HOOD         | 60C          | 1.0  | 616.8  | 616.8    |        |          |          |
| 19.0 HOOD         | 60D          | 2.0  | 1184.4 | 592.2    |        |          |          |
| 19.0 HOOD         | 60F          | 0.0  | 113.0  | ERR      |        |          |          |
| 19.0 HOOD         | 60G          | 0.2  | 83.9   | 419.5    |        |          |          |
| 19.0 HOOD         | 60H          | 0.0  | 204.1  | 4082     |        |          |          |
| 19.0 HOOD         | 60J          | 20.6 | 7402.2 | 359.3300 |        |          |          |
| 19.0 HOOD         | 60K          | 2.4  | 289.8  | 120.75   |        |          |          |
| 19.0 HOOD         | 60L          | 1.2  | 209.8  | 174.8333 |        |          |          |
| 19.0 HOOD         | 60M          | 1.8  | 208.0  | 115.5555 |        |          |          |
| 19.0 HOOD         | 60N          | 12.2 |        | 0        |        |          |          |
| 19.0 HOOD         | 60P          | 21.1 | 4545.4 | 215.4218 |        |          |          |
| 19.0 HOOD         | 60R          | 0.1  |        | 0        |        |          |          |
| 19.0 HOOD         | 60S          | 2.2  | 273.9  | 124.5    |        |          |          |
| 19.0 HOOD         | 60T          | 1.5  | 471.2  | 324.9655 |        |          |          |
| 19.0 HOOD         | 60U          | 0.3  | 72.7   | 242.3333 |        |          |          |
| 19.0 HOOD         | 60V          | 1.6  | 302.1  | 188.8125 |        |          |          |
| 19.0 HOOD         | 60W          | 3.0  | 1727.4 | 575.8    |        |          |          |
| 19.0 HOOD         | 61B          | 0.0  | 255.2  | ERR      |        |          |          |
| 19.0 HOOD         | 61D          | 0.0  | 18.5   | ERR      |        |          |          |
| 19.0 HOOD         | 61F          | 14.6 | 2728.4 | 186.8767 |        |          |          |
| 19.0 HOOD         | 61H          | 1.3  |        | 0        |        |          |          |
| 19.0 HOOD         | 61J          | 5.1  | 1736.5 | 340.4901 |        |          |          |
| 19.0 HOOD         | 61M          | 7.0  | 2541.8 | 363.1142 |        |          |          |
| 19.0 HOOD         | 61N          | 4.0  | 852.8  | 213.2    |        |          |          |
| 19.0 HOOD         | 61P          | 1.0  |        | 0        |        |          |          |
| 19.0 HOOD         | 61R          | 4.0  |        | 0        |        |          |          |
| 19.0 HOOD         | 61U          | 3.0  |        | 0        |        |          |          |
| 19.0 HOOD         | 62A          | 9.0  | 1964.1 | 218.2333 |        |          |          |
| 19.0 HOOD         | 62B          | 13.8 | 4970.1 | 32772.1  | 138.99 | 360.1521 | 235.7874 |
| 20.0 BEN HARRI60A |              | 1.0  |        | 0        |        |          |          |
|                   | BEN HARRI60C | 0.0  | 119.7  | ERR      |        |          |          |
| 20.0 BEN HARRI60D |              | 0.0  | 130.6  | ERR      |        |          |          |
| 20.0 BEN HARRI60J |              | 2.0  | 145.2  | 72.6     |        |          |          |
| 20.0 BEN HARRI60L |              | 1.0  | 13.1   | 13.1     |        |          |          |
| 20.0 BEN HARRI60M |              | 0.0  |        | ERR      |        |          |          |
| 20.0 BEN HARRI60N |              | 0.0  |        | ERR      |        |          |          |
| 20.0 BEN HARRI60P |              | 4.0  | 282.1  | 70.525   |        |          |          |
| 20.0 BEN HARRI60S |              | 2.2  |        | 0        |        |          |          |
| 20.0 BEN HARRI60T |              | 1.0  | 202.7  | 202.7    |        |          |          |
| 20.0 BEN HARRI60W |              | 3.0  | 98.9   | 32.9666  |        |          |          |
| 20.0 BEN HARRI61F |              | 2.0  | 224.4  | 112.2    |        |          |          |
| 20.0 BEN HARRI61H |              | 3.0  | 838.4  | 279.4666 |        |          |          |
| 20.0 BEN HARRI61J |              | 1.3  | 367.1  | 293.68   |        |          |          |
| 20.0 BEN HARRI61M |              | 0.2  | 87.7   | 487.2222 |        |          |          |
| 20.0 BEN HARRI61N |              | 1.0  | 4.9    | 4.9      |        |          |          |
| 20.0 BEN HARRI61R |              | 0.5  |        | 0        |        |          |          |
| 20.0 BEN HARRI62A |              | 4.0  | 784.9  | 196.225  |        |          |          |
| 20.0 BEN HARRI62B |              | 3.0  | 422.1  | 3721.8   | 29.13  | 140.7    | 127.7651 |
| 21.0 HUACHUCA 600 |              | 0.0  |        | ERR      |        |          |          |
| 21.0 HUACHUCA 60A |              | 1.0  |        | 0        |        |          |          |
| 21.0 HUACHUCA 60C |              | 0.0  | 44.5   | ERR      |        |          |          |
|                   | HUACHUCA 60D | 0.0  | 200.8  | ERR      |        |          |          |
|                   | HUACHUCA 60H | 0.0  | 46.2   | ERR      |        |          |          |
| 21.0 HUACHUCA 60J |              | 3.5  | 1142.0 | 326.2857 |        |          |          |
| 21.0 HUACHUCA 60K |              | 0.2  | 45.7   | 228.5    |        |          |          |
| 21.0 HUACHUCA 60L |              | 0.0  | 2.7    | ERR      |        |          |          |

|                   |      |        |        |                        |
|-------------------|------|--------|--------|------------------------|
| 21.0 HUACHUCA 60M | 1.0  | 61.0   |        | 61                     |
| 21.0 HUACHUCA 60M | 0.1  |        |        | 0                      |
| 21.0 HUACHUCA 60N | 3.0  |        |        | 0                      |
| 21.0 HUACHUCA 60P | 3.0  | 760.8  |        | 253.6                  |
| 21.0 HUACHUCA 60S | 0.0  | 4.7    |        | ERR                    |
| 21.0 HUACHUCA 60T | 0.2  | 163.9  |        | 819.5                  |
| 21.0 HUACHUCA 60U | 0.0  |        |        | ERR                    |
| 21.0 HUACHUCA 60W | 0.0  | 420.1  |        | ERR                    |
| 21.0 HUACHUCA 61F | 5.0  | 930.6  |        | 186.12                 |
| 21.0 HUACHUCA 61H | 0.0  |        |        | ERR                    |
| 21.0 HUACHUCA 61J | 5.0  | 724.0  |        | 144.8                  |
| 21.0 HUACHUCA 61M | 1.7  | 645.2  |        | 379.5294               |
| 21.0 HUACHUCA 61N | 2.0  | 67.7   |        | 33.85                  |
| HUACHUCA 61P      | 0.0  | 22.5   |        | ERR                    |
| 21.0 HUACHUCA 61R | 1.0  |        |        | 0                      |
| 21.0 HUACHUCA 61U | 1.0  |        |        | 0                      |
| 21.0 HUACHUCA 62A | 0.0  | 636.1  |        | ERR                    |
| 21.0 HUACHUCA 62B | 11.0 | 1597.7 | 7516.2 | 40.7 145.2454 184.6732 |
| 21.1 YUMA 61N     | 1.0  |        |        | 0                      |
| 21.1 YUMA 62B     | 1.0  |        |        | 0                      |
| 22.0 IRWIN 60A    | 1.0  |        |        | 0                      |
| IRWIN 60C         | 0.0  | 197.8  |        | ERR                    |
| IRWIN 60D         | 0.0  | 25.8   |        | ERR                    |
| 22.0 IRWIN 60J    | 2.0  | 381.4  |        | 190.7                  |
| IRWIN 60M         | 0.0  | 2.1    |        | ERR                    |
| 22.0 IRWIN 60P    | 1.0  | 216.4  |        | 216.4                  |
| IRWIN 60T         | 0.0  | 0.1    |        | ERR                    |
| 22.0 IRWIN 60W    | 1.0  | 232.8  |        | 232.8                  |
| 22.0 IRWIN 61F    | 1.0  | 389.9  |        | 389.9                  |
| 22.0 IRWIN 61H    | 4.0  | 695.4  |        | 173.85                 |
| 22.0 IRWIN 61J    | 1.0  | 391.4  |        | 391.4                  |
| 22.0 IRWIN 61M    | 0.0  | 15.2   |        | ERR                    |
| IRWIN 61N         | 0.0  | 25.8   |        | ERR                    |
| IRWIN 61P         | 0.0  | 12.6   |        | ERR                    |
| 22.0 IRWIN 61R    | 0.4  |        |        | 0                      |
| 22.0 IRWIN 62A    | 3.2  | 473.6  |        | 148                    |
| 22.0 IRWIN 62B    | 3.0  | 720.1  | 3780.4 | 17.6 240.0333 214.7954 |
| 23.0 JACKSON 600  | 6.0  |        |        | 0                      |
| 23.0 JACKSON 60A  | 2.0  |        |        | 0                      |
| 23.0 JACKSON 60B  | 1.0  |        |        | 0                      |
| 23.0 JACKSON 60C  | 1.0  | 285.1  |        | 285.1                  |
| JACKSON 60D       | 0.0  | 85.2   |        | ERR                    |
| JACKSON 60F       | 0.0  | 3311.2 |        | ERR                    |
| 23.0 JACKSON 60G  | 2.2  | 48.7   |        | 21.74107               |
| 23.0 JACKSON 60H  | 1.0  | 24.9   |        | 24.9                   |
| 23.0 JACKSON 60J  | 6.6  | 1019.8 |        | 154.5151               |
| 23.0 JACKSON 60K  | 2.0  | 293.0  |        | 146.5                  |
| 23.0 JACKSON 60L  | 2.0  | 271.4  |        | 135.7                  |
| 23.0 JACKSON 60M  | 1.0  | 58.4   |        | 58.4                   |
| 23.0 JACKSON 60N  | 6.2  |        |        | 0                      |
| 23.0 JACKSON 60P  | 7.0  | 946.1  |        | 135.1571               |
| 23.0 JACKSON 60S  | 2.0  | 261.4  |        | 130.7                  |
| 23.0 JACKSON 60T  | 1.0  | 324.6  |        | 324.6                  |
| 23.0 JACKSON 60U  | 1.0  | 46.2   |        | 46.2                   |
| 23.0 JACKSON 60V  | 0.0  | 0.0    |        | ERR                    |
| 23.0 JACKSON 60W  | 8.3  | 873.5  |        | 105.2409               |

|                   |     |      |        |                               |
|-------------------|-----|------|--------|-------------------------------|
| 23.0 JACKSON      | 61B | 1.0  | 491.0  | 491                           |
| 23.0 JACKSON      | 61F | 9.0  | 1818.4 | 202.0444                      |
| 23.0 JACKSON      | 61J | 3.0  | 981.8  | 327.2666                      |
| 23.0 JACKSON      | 61M | 5.0  | 967.5  | 193.5                         |
| 23.0 JACKSON      | 61N | 1.0  | 23.3   | 23.3                          |
| 23.0 JACKSON      | 61P | 0.0  | 153.4  | ERR                           |
| 23.0 JACKSON      | 61R | 2.0  |        | 0                             |
| 23.0 JACKSON      | 61U | 1.0  |        | 0                             |
| 23.0 JACKSON      | 61W | 0.0  |        | ERR                           |
| 23.0 JACKSON      | 62A | 7.0  | 1183.2 | 169.0285                      |
| 23.0 JACKSON      | 62B | 13.0 | 3105.9 | 16574 92.34 238.9153 179.4888 |
| 24.0 KNOX         | 600 | 7.0  |        | 0                             |
| 24.0 KNOX         | 60A | 2.0  |        | 0                             |
| 24.0 KNOX         | 60B | 0.0  |        | ERR                           |
| 24.0 KNOX         | 60C | 1.0  | 871.5  | 871.5                         |
| 24.0 KNOX         | 60D | 0.0  | 366.7  | ERR                           |
| 24.0 KNOX         | 60F | 0.0  | 0.0    | ERR                           |
| 24.0 KNOX         | 60G | 0.0  | 0.0    | ERR                           |
| 24.0 KNOX         | 60H | 0.0  | 13.2   | ERR                           |
| 24.0 KNOX         | 60J | 6.0  | 2462.1 | 410.35                        |
| 24.0 KNOX         | 60K | 2.0  | 339.8  | 169.9                         |
| 24.0 KNOX         | 60L | 1.0  | 188.1  | 188.1                         |
| 24.0 KNOX         | 60M | 0.0  | 75.1   | ERR                           |
| 24.0 KNOX         | 60N | 7.0  |        | 0                             |
| 24.0 KNOX         | 60P | 9.0  | 2036.0 | 226.2222                      |
| 24.0 KNOX         | 60S | 4.0  | 179.5  | 44.875                        |
| 24.0 KNOX         | 60T | 1.0  | 386.4  | 386.4                         |
| 24.0 KNOX         | 60V | 1.0  | 131.6  | 131.6                         |
| 24.0 KNOX         | 60W | 4.0  | 988.3  | 247.075                       |
| 24.0 KNOX         | 61F | 8.0  | 3109.1 | 388.6375                      |
| 24.0 KNOX         | 61J | 3.0  | 1588.2 | 529.4                         |
| 24.0 KNOX         | 61M | 4.0  | 1651.3 | 412.825                       |
| 24.0 KNOX         | 61N | 1.0  | 98.5   | 98.5                          |
| 24.0 KNOX         | 61P | 0.0  | 161.8  | ERR                           |
| 24.0 KNOX         | 61R | 4.0  |        | 0                             |
| 24.0 KNOX         | 61U | 2.0  |        | 0                             |
| 24.0 KNOX         | 62A | 5.8  | 1509.7 | 260.2931                      |
| 24.0 KNOX         | 62B | 18.0 | 6281.1 | 22438 90.8 348.95 247.1145    |
| 24.1 BLUE GRAS60D |     | 0.0  |        | ERR                           |
| 24.1 BLUE GRAS62B |     | 0.0  |        | ERR                           |

| FACNUM | FNAME        | SSI # | PROV | SPEC   | MWU | TOT    | MWU | TOT      | PROV     | MWU/PROV | Avg | PROV |
|--------|--------------|-------|------|--------|-----|--------|-----|----------|----------|----------|-----|------|
|        | LEAVENWOR600 | 3.0   |      |        |     |        |     |          | 0        |          |     |      |
| 25.0   | LEAVENWOR60A | 2.0   |      |        |     |        |     |          | 0        |          |     |      |
|        | LEAVENWOR60C | 0.0   |      | 279.8  |     |        |     |          | ERR      |          |     |      |
|        | LEAVENWOR60D | 0.0   |      | 136.1  |     |        |     |          | ERR      |          |     |      |
| 25.0   | LEAVENWOR60F | 0.3   |      |        |     |        |     |          | 0        |          |     |      |
| 25.0   | LEAVENWOR60J | 3.2   |      | 205.4  |     |        |     | 65.20634 |          |          |     |      |
| 25.0   | LEAVENWOR60K | 0.3   |      | 139.9  |     |        |     | 466.3333 |          |          |     |      |
| 25.0   | LEAVENWOR60L | 0.0   |      |        |     |        |     |          | ERR      |          |     |      |
|        | LEAVENWOR60M | 0.0   |      | 39.2   |     |        |     |          | ERR      |          |     |      |
| 25.0   | LEAVENWOR60N | 3.0   |      |        |     |        |     |          | 0        |          |     |      |
| 25.0   | LEAVENWOR60P | 6.0   |      | 467.1  |     |        |     | 77.85    |          |          |     |      |
| 25.0   | LEAVENWOR60S | 3.0   |      | 199.9  |     |        |     | 66.63333 |          |          |     |      |
| 25.0   | LEAVENWOR60T | 0.2   |      | 120.1  |     |        |     | 600.5    |          |          |     |      |
| 25.0   | LEAVENWOR60V | 0.2   |      |        |     |        |     | 0        |          |          |     |      |
| 25.0   | LEAVENWOR60W | 5.0   |      | 107.8  |     |        |     | 21.56    |          |          |     |      |
| 25.0   | LEAVENWOR61F | 4.0   |      | 969.5  |     |        |     | 242.375  |          |          |     |      |
| 25.0   | LEAVENWOR61H | 3.0   |      | 653.7  |     |        |     | 217.9    |          |          |     |      |
| 25.0   | LEAVENWOR61J | 3.0   |      | 410.1  |     |        |     | 136.7    |          |          |     |      |
| 25.0   | LEAVENWOR61M | 2.3   |      | 510.1  |     |        |     | 221.7826 |          |          |     |      |
| 25.0   | LEAVENWOR61N | 0.0   |      |        |     |        |     | ERR      |          |          |     |      |
| 25.0   | LEAVENWOR61R | 0.0   |      |        |     |        |     | ERR      |          |          |     |      |
| 25.0   | LEAVENWOR61U | 1.0   |      |        |     |        |     | 0        |          |          |     |      |
|        | LEAVENWOR62A | 0.0   |      | 547.7  |     |        |     | ERR      |          |          |     |      |
| 25.0   | LEAVENWOR62B | 9.0   |      | 1944.2 |     | 6730.6 |     | 48.4     | 216.0222 | 139.0619 |     |      |
| 26.0   | LEE          | 600   | 4.0  |        |     |        |     |          | 0        |          |     |      |
| 26.0   | LEE          | 60A   | 2.0  |        |     |        |     |          | 0        |          |     |      |
|        | LEE          | 60C   | 0.0  | 98.6   |     |        |     |          | ERR      |          |     |      |
| 26.0   | LEE          | 60D   | 0.0  | 234.0  |     |        |     |          | ERR      |          |     |      |
|        | LEE          | 60H   | 0.0  | 20.7   |     |        |     |          | ERR      |          |     |      |
| 26.0   | LEE          | 60J   | 2.4  | 483.9  |     |        |     | 201.625  |          |          |     |      |
| 26.0   | LEE          | 60K   | 0.2  | 61.1   |     |        |     | 305.5    |          |          |     |      |
| 26.0   | LEE          | 60L   | 1.0  | 104.1  |     |        |     | 104.1    |          |          |     |      |
|        | LEE          | 60M   | 0.0  | 12.8   |     |        |     | ERR      |          |          |     |      |
| 26.0   | LEE          | 60N   | 3.0  |        |     |        |     | 0        |          |          |     |      |
| 26.0   | LEE          | 60P   | 7.0  | 445.0  |     |        |     | 63.57142 |          |          |     |      |
| 26.0   | LEE          | 60S   | 4.0  | 174.0  |     |        |     | 43.5     |          |          |     |      |
| 26.0   | LEE          | 60T   | 0.3  | 85.6   |     |        |     | 285.3333 |          |          |     |      |
| 26.0   | LEE          | 60W   | 1.0  | 322.4  |     |        |     | 322.4    |          |          |     |      |
| 26.0   | LEE          | 61F   | 5.0  | 3239.0 |     |        |     | 647.8    |          |          |     |      |
| 26.0   | LEE          | 61H   | 0.0  |        |     |        |     | ERR      |          |          |     |      |
| 26.0   | LEE          | 61J   | 3.0  | 802.2  |     |        |     | 267.4    |          |          |     |      |
| 26.0   | LEE          | 61M   | 2.0  | 1081.1 |     |        |     | 540.55   |          |          |     |      |
| 26.0   | LEE          | 61N   | 0.0  | 3.0    |     |        |     | ERR      |          |          |     |      |
|        | LEE          | 61P   | 0.0  | 57.9   |     |        |     | ERR      |          |          |     |      |
| 26.0   | LEE          | 61R   | 1.0  |        |     |        |     | 0        |          |          |     |      |
| 26.0   | LEE          | 61U   | 1.0  |        |     |        |     | 0        |          |          |     |      |
| 26.0   | LEE          | 62A   | 2.8  | 763.4  |     |        |     | 272.6428 |          |          |     |      |
| 26.0   | LEE          | 62B   | 10.0 | 1815.4 |     | 9804.2 |     | 49.7     | 181.54   | 197.2676 |     |      |
| 27.0   | LEONARD      | W600  | 6.0  |        |     |        |     |          | 0        |          |     |      |
| 27.0   | LEONARD      | W50A  | 2.0  |        |     |        |     |          | 0        |          |     |      |
| 27.0   | LEONARD      | W60B  | 1.0  |        |     |        |     |          | 0        |          |     |      |
| 27.0   | LEONARD      | W60C  | 6.0  | 375.6  |     |        |     | 62.6     |          |          |     |      |
| 27.0   | LEONARD      | W60D  | 2.0  | 1019.7 |     |        |     | 509.85   |          |          |     |      |
|        | LEONARD      | W60F  | 0.0  | 33.6   |     |        |     | ERR      |          |          |     |      |
| 27.0   | LEONARD      | W60G  | 1.0  | 156.1  |     |        |     | 156.1    |          |          |     |      |

|                   |      |                       |                   |
|-------------------|------|-----------------------|-------------------|
| 27.0 LEONARD W60H | 0.0  | 266.8                 | 5336              |
| 27.0 LEONARD W60J | 6.1  | 1511.8                | 249.4719          |
| 27.0 LEONARD W60K | 1.1  | 408.0                 | 384.9056          |
| 27.0 LEONARD W60L | 1.0  | 243.5                 | 243.5             |
| 27.0 LEONARD W60M | 1.0  | 56.8                  | 56.8              |
| 27.0 LEONARD W60N | 6.0  |                       | 0                 |
| 27.0 LEONARD W60P | 8.0  | 1004.4                | 125.55            |
| 27.0 LEONARD W60S | 4.0  | 215.1                 | 53.775            |
| 27.0 LEONARD W60T | 1.2  | 285.3                 | 237.75            |
| 27.0 LEONARD W60U | 0.0  | 0.0                   | ERR               |
| 27.0 LEONARD W60V | 0.2  | 14.1                  | 70.5              |
| 27.0 LEONARD W60W | 10.5 | 831.0                 | 79.14285          |
| 27.0 LEONARD W61B | 0.3  | 2.6                   | 10.4              |
| 27.0 LEONARD W61F | 6.5  | 1540.8                | 237.0461          |
| 27.0 LEONARD W61H | 6.0  | 2353.8                | 392.3             |
| 27.0 LEONARD W61J | 3.0  | 916.6                 | 305.5333          |
| 27.0 LEONARD W61M | 6.0  | 1340.0                | 223.3333          |
| 27.0 LEONARD W61N | 1.0  | 44.7                  | 44.7              |
| LEONARD W61P      | 0.0  | 91.1                  | ERR               |
| 27.0 LEONARD W61R | 3.5  |                       | 0                 |
| 27.0 LEONARD W61U | 2.0  |                       | 0                 |
| 27.0 LEONARD W62A | 1.0  | 942.3                 | 942.3             |
| 27.0 LEONARD W62B | 16.1 | 5325.7 18979.4 111.42 | 330.7888 170.3410 |
| 27.1 ROCK ISLA61R | 0.0  |                       | ERR               |
| 27.1 ROCK ISLA62B | 2.0  |                       | 0                 |
| 27.2 ST LOUIS 60A | 1.0  |                       | 0                 |
| 27.2 ST LOUIS 60D | 0.0  |                       | ERR               |
| 27.2 ST LOUIS 60P | 0.0  |                       | ERR               |
| 27.2 ST LOUIS 61H | 0.0  |                       | ERR               |
| 27.2 ST LOUIS 61N | 1.0  |                       | 0                 |
| 27.2 ST LOUIS 61R | 0.0  |                       | ERR               |
| 27.2 ST LOUIS 62B | 1.0  |                       | 0                 |
| 27.3 SELFRIDGE60D | 0.0  |                       | ERR               |
| 27.3 SELFRIDGE61R | 0.0  |                       | ERR               |
| 27.3 SELFRIDGE62B | 1.0  |                       | 0                 |
| 27.4 SHERIDAN 60A | 1.0  |                       | 0                 |
| 27.4 SHERIDAN 61H | 0.0  |                       | ERR               |
| 27.4 SHERIDAN 61N | 1.0  |                       | 0                 |
| 27.4 SHERIDAN 62B | 1.0  |                       | 0                 |
| 28.0 MCCLELLAN600 | 1.0  |                       | 0                 |
| 28.0 MCCLELLAN60A | 2.0  |                       | 0                 |
| 28.0 MCCLELLAN60C | 3.0  | 412.0                 | 137.3333          |
| 28.0 MCCLELLAN60D | 2.0  | 558.2                 | 279.1             |
| MCCLELLAN60F      | 0.0  | 675.6                 | ERR               |
| 28.0 MCCLELLAN60J | 5.0  | 968.0                 | 193.6             |
| 28.0 MCCLELLAN60K | 0.3  |                       | 0                 |
| MCCLELLAN60L      | 0.0  | 14.2                  | ERR               |
| MCCLELLAN60M      | 0.0  | 10.3                  | ERR               |
| 28.0 MCCLELLAN60N | 2.0  |                       | 0                 |
| 28.0 MCCLELLAN60P | 5.0  | 699.9                 | 139.98            |
| 28.0 MCCLELLAN60S | 3.0  |                       | 0                 |
| 28.0 MCCLELLAN60T | 0.1  |                       | 0                 |
| 28.0 MCCLELLAN60W | 3.0  | 316.4                 | 105.4666          |
| 28.0 MCCLELLAN61B | 0.1  | 19.4                  | 194               |
| 28.0 MCCLELLAN61F | 6.0  | 2102.8                | 350.4666          |
| 28.0 MCCLELLAN61H | 0.0  |                       | ERR               |

|                   |      |        |         |                         |
|-------------------|------|--------|---------|-------------------------|
| 28.0 MCCLELLAN61J | 2.0  | 1233.5 |         | 616.75                  |
| 28.0 MCCLELLAN61M | 3.0  | 660.5  |         | 220.1666                |
| 28.0 MCCLELLAN61N | 0.0  | 6.2    |         | ERR                     |
| 28.0 MCCLELLAN61R | 0.5  |        |         | 0                       |
| 28.0 MCCLELLAN61U | 1.0  |        |         | 0                       |
| 28.0 MCCLELLAN62A | 4.2  | 857.1  |         | 204.0714                |
| 28.0 MCCLELLAN62B | 13.3 | 1346.7 | 9880.8  | 56.5 101.2556 174.8814  |
| 29.0 MEADE 600    | 0.0  |        |         | ERR                     |
| 29.0 MEADE 60A    | 2.0  |        |         | 0                       |
| 29.0 MEADE 60C    | 2.0  | 573.4  |         | 286.7                   |
| 29.0 MEADE 60D    | 0.0  | 1530.8 |         | ERR                     |
| 29.0 MEADE 60E    | 0.3  |        |         | 0                       |
| 29.0 MEADE 60J    | 5.3  | 1446.4 |         | 275.5047                |
| 29.0 MEADE 60K    | 1.0  | 387.2  |         | 387.2                   |
| 29.0 MEADE 60L    | 1.2  | 806.4  |         | 672                     |
| 29.0 MEADE 60N    | 3.0  |        |         | 0                       |
| 29.0 MEADE 60P    | 9.0  | 1145.0 |         | 127.2222                |
| 29.0 MEADE 60S    | 3.4  | 153.6  |         | 45.17647                |
| 29.0 MEADE 60T    | 0.4  | 208.8  |         | 596.5714                |
| 29.0 MEADE 60U    | 0.0  |        |         | ERR                     |
| 29.0 MEADE 60W    | 8.8  | 607.9  |         | 69.07954                |
| 29.0 MEADE 61F    | 7.6  | 2443.7 |         | 321.5394                |
| 29.0 MEADE 61H    | 0.0  | 355.7  |         | ERR                     |
| 29.0 MEADE 61J    | 2.0  | 1210.9 |         | 605.45                  |
| MEADE 61K         | 0.0  | 33.5   |         | ERR                     |
| 29.0 MEADE 61M    | 3.0  | 1090.0 |         | 363.3333                |
| 29.0 MEADE 61N    | 1.0  |        |         | 0                       |
| MEADE 61P         | 0.0  | 33.6   |         | ERR                     |
| 29.0 MEADE 61R    | 2.0  |        |         | 0                       |
| 29.0 MEADE 61U    | 0.0  |        |         | ERR                     |
| 29.0 MEADE 62A    | 4.0  | 1725.3 |         | 431.325                 |
| 29.0 MEADE 62B    | 18.2 | 4882.0 | 18634.2 | 120.4 268.2417 154.7691 |
| 29.1 ABERDEEN 600 | 3.0  |        |         | 0                       |
| 29.1 ABERDEEN 60A | 1.0  |        |         | 0                       |
| 29.1 ABERDEEN 60C | 0.0  |        |         | ERR                     |
| 29.1 ABERDEEN 60D | 1.0  |        |         | 0                       |
| 29.1 ABERDEEN 60J | 1.0  |        |         | 0                       |
| 29.1 ABERDEEN 60P | 3.0  |        |         | 0                       |
| 29.1 ABERDEEN 60W | 0.0  |        |         | ERR                     |
| 29.1 ABERDEEN 61F | 1.0  |        |         | 0                       |
| 29.1 ABERDEEN 61H | 0.0  |        |         | ERR                     |
| 29.1 ABERDEEN 61J | 1.0  |        |         | 0                       |
| 29.1 ABERDEEN 61N | 0.0  |        |         | ERR                     |
| 29.1 ABERDEEN 61R | 1.0  |        |         | 0                       |
| 29.1 ABERDEEN 62A | 4.0  |        |         | 0                       |
| 29.1 ABERDEEN 62B | 5.0  |        |         | 0                       |
| 29.2 CARLISLE 60A | 1.0  |        |         | 0                       |
| 29.2 CARLISLE 60J | 1.0  |        |         | 0                       |
| 29.2 CARLISLE 60P | 0.8  |        |         | 0                       |
| 29.2 CARLISLE 61F | 1.1  |        |         | 0                       |
| 29.2 CARLISLE 61H | 5.0  |        |         | 0                       |
| 29.2 CARLISLE 61J | 0.3  |        |         | 0                       |
| 29.2 CARLISLE 61R | 1.0  |        |         | 0                       |
| 29.2 CARLISLE 62B | 1.1  |        |         | 0                       |
| 29.3 DETRICK 61H  | 3.0  |        |         | 0                       |
| 29.3 DETRICK 62B  | 1.0  |        |         | 0                       |

|                   |     |        |          |      |          |          |
|-------------------|-----|--------|----------|------|----------|----------|
| 29.4 LETTERKEN60D | 1.0 |        | 0        |      |          |          |
| 29.4 LETTERKEN62B | 1.0 |        | 0        |      |          |          |
| 29.5 NEW CUMBE60D | 0.0 |        | ERR      |      |          |          |
| 29.5 NEW CUMBE61H | 0.0 |        | ERR      |      |          |          |
| 29.5 NEW CUMBE62B | 2.0 |        | 0        |      |          |          |
| 29.6 RICHIE 61H   | 2.0 |        | 0        |      |          |          |
| 29.6 RICHIE 62B   | 1.0 |        | 0        |      |          |          |
| 29.7 TOBYHANNA60D | 1.0 |        | 0        |      |          |          |
| 29.7 TOBYHANNA62B | 1.0 |        | 0        |      |          |          |
| 29.8 INDIANTOW62B | 1.0 |        | 0        |      |          |          |
| 30.0 MONMOUTH 60A | 2.0 |        | 0        |      |          |          |
| MONMOUTH 60C      | 0.0 | 60.7   | ERR      |      |          |          |
| 30.0 MONMOUTH 60D | 2.0 | 364.3  | 182.15   |      |          |          |
| 30.0 MONMOUTH 60G | 0.0 |        | ERR      |      |          |          |
| 30.0 MONMOUTH 60J | 1.2 | 171.4  | 142.8333 |      |          |          |
| 30.0 MONMOUTH 60K | 2.0 | 193.9  | 96.95    |      |          |          |
| 30.0 MONMOUTH 60L | 0.1 | 20.5   | 205      |      |          |          |
| 30.0 MONMOUTH 60M | 0.4 | 21.7   | 54.25    |      |          |          |
| 30.0 MONMOUTH 60N | 2.0 |        | 0        |      |          |          |
| 30.0 MONMOUTH 60P | 4.5 | 488.6  | 108.5777 |      |          |          |
| MONMOUTH 60S      | 0.0 | 3.8    | ERR      |      |          |          |
| 30.0 MONMOUTH 60T | 0.3 | 23.0   | 76.6666  |      |          |          |
| 30.0 MONMOUTH 60W | 0.2 | 99.1   | 495.5    |      |          |          |
| 30.0 MONMOUTH 61F | 5.5 | 1030.9 | 187.4363 |      |          |          |
| 30.0 MONMOUTH 61H | 0.0 |        | ERR      |      |          |          |
| 30.0 MONMOUTH 61J | 2.0 | 315.6  | 157.8    |      |          |          |
| 30.0 MONMOUTH 61M | 1.0 | 403.1  | 403.1    |      |          |          |
| 30.0 MONMOUTH 61R | 1.4 |        | 0        |      |          |          |
| 30.0 MONMOUTH 61U | 1.0 |        | 0        |      |          |          |
| 30.0 MONMOUTH 62A | 4.1 | 446.3  | 108.8536 |      |          |          |
| 30.0 MONMOUTH 62B | 3.0 | 1406.6 | 5049.5   | 36.7 | 468.8666 | 137.5885 |
| 30.1 BAYONNE 60D  | 0.0 |        | ERR      |      |          |          |
| 30.1 BAYONNE 61F  | 0.0 |        | ERR      |      |          |          |
| 30.1 BAYONNE 62B  | 1.0 |        | 0        |      |          |          |
| 30.2 HAMILTON 60A | 1.0 |        | 0        |      |          |          |
| 30.2 HAMILTON 60P | 0.0 |        | ERR      |      |          |          |
| 30.2 HAMILTON 61F | 0.0 |        | ERR      |      |          |          |
| 30.2 HAMILTON 62B | 2.0 |        | 0        |      |          |          |
| 31.0 ORD 60A      | 2.0 |        | 0        |      |          |          |
| 31.0 ORD 60B      | 1.0 |        | 0        |      |          |          |
| 31.0 ORD 60C      | 1.0 | 245.8  | 245.8    |      |          |          |
| 31.0 ORD 60D      | 1.0 | 86.3   | 86.3     |      |          |          |
| 31.0 ORD 60G      | 0.0 | 8.4    | ERR      |      |          |          |
| 31.0 ORD 60H      | 1.0 | 206.8  | 206.8    |      |          |          |
| 31.0 ORD 60J      | 9.7 | 2311.2 | 238.2680 |      |          |          |
| 31.0 ORD 60K      | 2.0 | 622.3  | 311.15   |      |          |          |
| 31.0 ORD 60L      | 1.0 | 241.1  | 241.1    |      |          |          |
| 31.0 ORD 60M      | 1.0 | 60.4   | 60.4     |      |          |          |
| 31.0 ORD 60N      | 8.0 |        | 0        |      |          |          |
| 31.0 ORD 60P      | 7.4 | 1999.7 | 270.2297 |      |          |          |
| 31.0 ORD 60S      | 2.0 | 339.9  | 169.95   |      |          |          |
| 31.0 ORD 60T      | 1.0 | 301.2  | 301.2    |      |          |          |
| 31.0 ORD 60U      | 0.0 | 0.0    | ERR      |      |          |          |
| 31.0 ORD 60V      | 1.2 | 24.0   | 20       |      |          |          |
| 31.0 ORD 60W      | 6.5 | 841.6  | 129.4769 |      |          |          |
| 31.0 ORD 61F      | 6.0 | 2118.5 | 353.0833 |      |          |          |

|                |         |      |        |          |
|----------------|---------|------|--------|----------|
| 31.0 ORD       | 61H     | 14.0 | 3649.3 | 260.6642 |
| 31.0 ORD       | 61J     | 2.0  | 1419.6 | 709.8    |
| 31.0 ORD       | 61M     | 5.0  | 1281.1 | 256.22   |
| 31.0 ORD       | 61N     | 1.0  | 162.2  | 162.2    |
| 31.0 ORD       | 61R     | 2.0  |        | 0        |
| 31.0 ORD       | 61U     | 2.0  |        | 0        |
| 31.0 ORD       | 62A     | 2.0  | 1272.7 | 636.35   |
| 31.0 ORD       | 62B     | 14.1 | 2872.8 | 20064.9  |
|                |         |      | 98.9   | 203.7446 |
|                |         |      |        | 202.8806 |
| 31.1 HUNTER    | LI61H   | 0.0  |        | ERR      |
| 31.1 HUNTER    | LI61N   | 0.0  |        | ERR      |
| 31.1 HUNTER    | LI62B   | 1.0  |        | 0        |
| 31.2 MONTERREY | 61H     | 4.0  |        | 0        |
| 31.2 MONTERREY | 62B     | 0.0  |        | ERR      |
| 32.0 PANAMA    | 600     | 2.0  |        | 0        |
| 32.0 PANAMA    | 60A     | 4.0  |        | 0        |
| 32.0 PANAMA    | 60C     | 1.0  | 416.5  | 416.5    |
| 32.0 PANAMA    | 60D     | 1.0  | 117.9  | 117.9    |
| 32.0 PANAMA    | 60F     | 1.0  | 23.0   | 23       |
| 32.0 PANAMA    | 60G     | 1.0  | 46.1   | 46.1     |
| 32.0 PANAMA    | 60H     | 1.0  | 73.2   | 73.2     |
| 32.0 PANAMA    | 60J     | 7.0  | 1613.6 | 230.5142 |
| 32.0 PANAMA    | 60K     | 2.0  | 297.7  | 148.85   |
| 32.0 PANAMA    | 60L     | 1.0  | 77.2   | 77.2     |
| 32.0 PANAMA    | 60M     | 0.0  | 29.3   | ERR      |
| 32.0 PANAMA    | 60N     | 5.0  |        | 0        |
| 32.0 PANAMA    | 60P     | 9.0  | 1716.9 | 190.7666 |
| 32.0 PANAMA    | 60R     | 1.0  |        | 0        |
| 32.0 PANAMA    | 60S     | 4.0  | 323.0  | 80.75    |
| 32.0 PANAMA    | 60T     | 2.0  | 478.5  | 239.25   |
| PANAMA         | 60U     | 0.0  | 20.6   | ERR      |
| 32.0 PANAMA    | 60V     | 1.0  | 69.4   | 69.4     |
| 32.0 PANAMA    | 60W     | 5.0  | 846.7  | 169.34   |
| 32.0 PANAMA    | 61B     | 0.0  |        | ERR      |
| 32.0 PANAMA    | 61C     | 1.0  | 130.4  | 130.4    |
| 32.0 PANAMA    | 61F     | 3.0  | 2286.5 | 762.1666 |
| 32.0 PANAMA    | 61H     | 1.0  | 383.8  | 383.8    |
| 32.0 PANAMA    | 61J     | 2.0  | 687.7  | 343.85   |
| 32.0 PANAMA    | 61K     | 0.5  |        | 0        |
| 32.0 PANAMA    | 61M     | 4.0  | 1193.2 | 298.3    |
| 32.0 PANAMA    | 61N     | 0.0  | 15.1   | ERR      |
| 32.0 PANAMA    | 61P     | 0.0  |        | ERR      |
| 32.0 PANAMA    | 61R     | 3.5  |        | 0        |
| 32.0 PANAMA    | 61U     | 2.0  |        | 0        |
| 32.0 PANAMA    | 61Z     | 1.0  |        | 0        |
| 32.0 PANAMA    | 62A     | 0.0  | 862.3  | ERR      |
| 32.0 PANAMA    | 62B     | 19.0 | 1364.7 | 13073.3  |
|                |         |      | 90     | 71.82631 |
|                |         |      |        | 145.2588 |
| 32.1 COCO      | SOL060P | 0.0  |        | ERR      |
| 32.1 COCO      | SOL061F | 0.0  |        | ERR      |
| 32.1 COCO      | SOL061H | 0.0  |        | ERR      |
| 32.1 COCO      | SOL061J | 0.0  |        | ERR      |
| 32.1 COCO      | SOL062B | 2.0  |        | 0        |
| 32.2 CLAYTON   | 600     | 0.0  |        | ERR      |
| 32.2 CLAYTON   | 60P     | 1.0  |        | 0        |
| 32.2 CLAYTON   | 62B     | 2.0  |        | 0        |
| 33.0 POLK      | 600     | 1.0  |        | 0        |
| 33.0 POLK      | 60A     | 0.0  |        | ERR      |

|               |              |      |                |                         |
|---------------|--------------|------|----------------|-------------------------|
| 33.0 POLK     | 60C          | 0.0  | 270.6          | ERR                     |
|               | 60D          | 0.0  | 163.4          | ERR                     |
| 33.0 POLK     | 60H          | 0.1  | 54.9           | 549                     |
| 33.0 POLK     | 60J          | 5.0  | 1271.6         | 254.32                  |
| 33.0 POLK     | 60K          | 0.2  | 18.6           | 93                      |
| 33.0 POLK     | 60L          | 1.0  | 188.7          | 188.7                   |
| 33.0 POLK     | 60N          | 4.0  |                | 0                       |
| 33.0 POLK     | 60P          | 6.2  | 390.5          | 62.98387                |
| 33.0 POLK     | 60S          | 1.0  | 127.7          | 127.7                   |
| 33.0 POLK     | 60T          | 2.0  | 375.4          | 187.7                   |
| 33.0 POLK     | 60U          | 0.0  | 0.0            | ERR                     |
| 33.0 POLK     | 60V          | 0.0  | 5.6            | ERR                     |
| 33.0 POLK     | 60W          | 3.6  | 816.8          | 226.8888                |
| 33.0 POLK     | 61D          | 1.0  |                | 0                       |
| 33.0 POLK     | 61F          | 5.0  | 703.0          | 140.6                   |
| 33.0 POLK     | 61H          | 15.8 | 4053.5         | 256.5506                |
| 33.0 POLK     | 61J          | 3.0  | 1058.4         | 352.8                   |
| 33.0 POLK     | 61M          | 2.0  | 911.3          | 455.65                  |
| 33.0 POLK     | 61N          | 0.0  | 215.7          | ERR                     |
| 33.0 POLK     | 61R          | 1.4  |                | 0                       |
| 33.0 POLK     | 61U          | 1.0  |                | 0                       |
| 33.0 POLK     | 62A          | 4.5  | 1374.9         | 305.5333                |
| 33.0 POLK     | 62B          | 4.0  | 1489.3 13489.9 | 61.8 372.325 218.2831   |
| 34.0 REDSTONE | 600          | 0.0  |                | ERR                     |
| 34.0 REDSTONE | 60A          | 1.0  |                | 0                       |
|               | REDSTONE 60C | 0.0  | 42.5           | ERR                     |
| 34.0 REDSTONE | 60D          | 1.0  | 140.2          | 140.2                   |
| 34.0 REDSTONE | 60J          | 3.0  | 364.3          | 121.4333                |
| 34.0 REDSTONE | 60N          | 2.2  |                | 0                       |
| 34.0 REDSTONE | 60P          | 5.0  | 542.6          | 108.52                  |
| 34.0 REDSTONE | 60T          | 1.2  |                | 0                       |
| 34.0 REDSTONE | 60V          | 1.0  | 186.4          | 186.4                   |
| 34.0 REDSTONE | 60W          | 0.4  | 229.8          | 604.7368                |
| 34.0 REDSTONE | 61F          | 4.0  | 835.3          | 208.825                 |
| 34.0 REDSTONE | 61H          | 7.3  | 1119.1         | 153.3013                |
| 34.0 REDSTONE | 61J          | 2.0  | 965.7          | 482.85                  |
| 34.0 REDSTONE | 61M          | 0.2  |                | 0                       |
| 34.0 REDSTONE | 61N          | 1.0  | 5.6            | 5.6                     |
| 34.0 REDSTONE | 61R          | 1.5  |                | 0                       |
| 34.0 REDSTONE | 61U          | 0.0  |                | 0                       |
| 34.0 REDSTONE | 62A          | 3.0  | 988.5          | 329.5                   |
| 34.0 REDSTONE | 62B          | 7.0  | 352.2 5772.2   | 40.83 50.31428 141.3715 |
| 35.0 RILEY    | 600          | 1.0  |                | 0                       |
| 35.0 RILEY    | 60A          | 2.0  |                | 0                       |
| 35.0 RILEY    | 60C          | 1.0  | 125.8          | 125.8                   |
|               | RILEY 60D    | 0.0  | 81.8           | ERR                     |
| 35.0 RILEY    | 60J          | 7.8  | 2333.1         | 299.1153                |
| 35.0 RILEY    | 60K          | 0.0  | 193.1          | ERR                     |
| 35.0 RILEY    | 60L          | 0.5  | 159.1          | 318.2                   |
| 35.0 RILEY    | 60M          | 1.0  | 65.1           | 65.1                    |
| 35.0 RILEY    | 60N          | 5.0  |                | 0                       |
| 35.0 RILEY    | 60P          | 7.8  | 2385.9         | 305.8846                |
| 35.0 RILEY    | 60Q          | 0.0  |                | 0                       |
| 35.0 RILEY    | 60S          | 1.0  | 157.9          | 157.9                   |
| 35.0 RILEY    | 60T          | 1.1  | 365.5          | 348.0952                |
| 35.0 RILEY    | 60U          | 0.0  |                | ERR                     |

|             |     |      |        |                         |
|-------------|-----|------|--------|-------------------------|
| 35.0 RILEY  | 60V | 0.0  |        | 0                       |
| 35.0 RILEY  | 60W | 2.0  | 1126.4 | 563.2                   |
| 35.0 RILEY  | 61F | 5.1  | 1674.4 | 331.5643                |
| 35.0 RILEY  | 61H | 8.9  | 1004.1 | 145.5217                |
| 35.0 RILEY  | 61J | 4.0  | 1095.3 | 273.825                 |
| 35.0 RILEY  | 61M | 5.0  | 1136.7 | 227.34                  |
| RILEY       | 61N | 0.0  | 154.8  | ERR                     |
| 35.0 RILEY  | 61R | 2.5  |        | 0                       |
| 35.0 RILEY  | 61U | 1.0  |        | 0                       |
| 35.0 RILEY  | 62A | 7.0  | 1081.4 | 154.4857                |
| 35.0 RILEY  | 62B | 7.0  | 2731.8 | 15872.2                 |
|             |     |      |        | 68.7 390.2571 231.0363  |
| 36.0 RUCKER | 600 | 0.0  |        | ERR                     |
| 36.0 RUCKER | 60A | 2.0  |        | 0                       |
| RUCKER      | 60C | 0.0  | 119.6  | ERR                     |
| 36.0 RUCKER | 60D | 0.0  | 88.1   | ERR                     |
| 36.0 RUCKER | 60H | 0.4  |        | 0                       |
| 36.0 RUCKER | 60J | 5.1  | 1524.3 | 297.1345                |
| 36.0 RUCKER | 60K | 2.0  | 63.8   | 31.9                    |
| 36.0 RUCKER | 60L | 0.6  | 182.8  | 304.6666                |
| 36.0 RUCKER | 60M | 0.0  | 17.6   | ERR                     |
| 36.0 RUCKER | 60N | 2.0  |        | 0                       |
| 36.0 RUCKER | 60P | 6.0  | 1040.7 | 173.45                  |
| 36.0 RUCKER | 60S | 3.0  | 248.7  | 82.9                    |
| 36.0 RUCKER | 60T | 0.0  |        | ERR                     |
| 36.0 RUCKER | 60V | 0.4  | 10.3   | 25.75                   |
| 36.0 RUCKER | 60W | 5.0  | 170.0  | 34                      |
| 36.0 RUCKER | 61A | 0.0  |        | ERR                     |
| 36.0 RUCKER | 61B | 0.0  | 166.3  | ERR                     |
| 36.0 RUCKER | 61F | 5.0  | 1143.0 | 228.6                   |
| 36.0 RUCKER | 61H | 0.0  |        | ERR                     |
| 36.0 RUCKER | 61J | 2.0  | 552.1  | 276.05                  |
| 36.0 RUCKER | 61L | 0.0  |        | ERR                     |
| 36.0 RUCKER | 61M | 1.0  | 759.5  | 759.5                   |
| 36.0 RUCKER | 61N | 12.0 | 690.4  | 57.53333                |
| 36.0 RUCKER | 61R | 0.0  |        | ERR                     |
| 36.0 RUCKER | 61U | 2.0  |        | 0                       |
| 36.0 RUCKER | 62A | 0.0  | 718.6  | ERR                     |
| 36.0 RUCKER | 62B | 9.2  | 1186.9 | 8682.7                  |
|             |     |      |        | 57.73 129.0108 150.4018 |
| 37.0 SILL   | 600 | 7.0  |        | 0                       |
| 37.0 SILL   | 60A | 2.0  |        | 0                       |
| 37.0 SILL   | 60B | 1.0  |        | 0                       |
| 37.0 SILL   | 60C | 0.0  | 201.9  | ERR                     |
| 37.0 SILL   | 60D | 0.0  | 358.7  | ERR                     |
| 37.0 SILL   | 60H | 0.0  | 4.9    | ERR                     |
| 37.0 SILL   | 60J | 7.0  | 957.2  | 136.7428                |
| 37.0 SILL   | 60K | 1.0  | 177.7  | 177.7                   |
| 37.0 SILL   | 60L | 2.0  | 121.3  | 60.65                   |
| SILL        | 60M | 0.0  | 56.2   | ERR                     |
| 37.0 SILL   | 60N | 5.0  |        | 0                       |
| 37.0 SILL   | 60P | 6.0  | 756.5  | 126.0833                |
| 37.0 SILL   | 60S | 1.0  | 200.8  | 200.8                   |
| 37.0 SILL   | 60T | 1.0  | 538.7  | 538.7                   |
| 37.0 SILL   | 60U | 0.0  |        | ERR                     |
| 37.0 SILL   | 60W | 2.0  | 451.6  | 225.8                   |
| 37.0 SILL   | 61F | 7.0  | 777.4  | 111.0571                |
| 37.0 SILL   | 61H | 23.7 | 7358.1 | 310.4683                |

|              |         |      |                |                       |
|--------------|---------|------|----------------|-----------------------|
| 37.0 SILL    | 61J     | 2.3  | 867.8          | 365.6888              |
| 37.0 SILL    | 61M     | 5.0  | 1160.8         | 232.16                |
| 37.0 SILL    | 61N     | 1.0  | 104.6          | 104.6                 |
| 37.0 SILL    | 61R     | 3.0  |                | 0                     |
| 37.0 SILL    | 61U     | 2.0  |                | 0                     |
| 37.0 SILL    | 62A     | 1.0  | 1199.4         | 1199.4                |
| 37.0 SILL    | 62B     | 10.0 | 2365.8 17659.4 | 91.95 236.58 192.0543 |
| 37.2 PINE    | BLUF600 | 0.0  |                | ERR                   |
| 37.2 PINE    | BLUF61H | 1.0  |                | 0                     |
| 37.2 PINE    | BLUF62B | 1.0  |                | 0                     |
| 38.0 STEWART | 600     | 2.0  |                | 0                     |
| 38.0 STEWART | 60A     | 2.0  |                | 0                     |
| 38.0 STEWART | 60C     | 1.0  | 167.8          | 167.8                 |
| 38.0 STEWART | 60D     | 0.0  | 172.4          | ERR                   |
| 38.0 STEWART | 60J     | 7.0  | 2167.3         | 309.6142              |
| 38.0 STEWART | 60L     | 1.0  | 56.9           | 56.9                  |
| 38.0 STEWART | 60N     | 5.0  |                | 0                     |
| 38.0 STEWART | 60P     | 8.0  | 1703.3         | 212.9125              |
| 38.0 STEWART | 60S     | 3.0  | 179.9          | 59.96666              |
| 38.0 STEWART | 60T     | 0.1  | 13.2           | 132                   |
| 38.0 STEWART | 60U     | 0.0  |                | ERR                   |
| 38.0 STEWART | 60W     | 4.0  | 747.1          | 186.775               |
| 38.0 STEWART | 61A     | 0.2  |                | 0                     |
| 38.0 STEWART | 61F     | 4.0  | 628.3          | 157.075               |
| 38.0 STEWART | 61H     | 7.0  | 1293.2         | 184.7428              |
| 38.0 STEWART | 61J     | 3.0  | 1128.7         | 376.2333              |
| 38.0 STEWART | 61M     | 5.0  | 993.0          | 198.6                 |
| 38.0 STEWART | 61N     | 0.0  | 176.9          | ERR                   |
| 38.0 STEWART | 61P     | 0.0  | 60.3           | ERR                   |
| 38.0 STEWART | 61R     | 3.1  |                | 0                     |
| 38.0 STEWART | 61U     | 1.0  |                | 0                     |
| 38.0 STEWART | 62A     | 7.0  | 1609.9         | 229.9857              |
| 38.0 STEWART | 62B     | 6.0  | 1896.9 12995.1 | 75 316.15 173.268     |
| 38.1 TUTTLE  | 60J     | 0.2  |                | 0                     |
| 38.1 TUTTLE  | 61F     | 0.2  |                | 0                     |
| 38.1 TUTTLE  | 61N     | 1.0  |                | 0                     |
| 38.1 TUTTLE  | 61R     | 0.2  |                | 0                     |
| 38.1 TUTTLE  | 62B     | 4.0  |                | 0                     |
| 39.0 WEST    | POIN600 | 3.0  |                | 0                     |
| 39.0 WEST    | POIN60A | 2.0  |                | 0                     |
| 39.0 WEST    | POIN60C | 0.0  | 111.0          | ERR                   |
| 39.0 WEST    | POIN60D | 1.0  | 70.8           | 70.8                  |
| 39.0 WEST    | POIN606 | 0.7  |                | 0                     |
| 39.0 WEST    | POIN60H | 0.1  |                | 0                     |
| 39.0 WEST    | POIN60J | 2.0  | 305.9          | 152.95                |
| 39.0 WEST    | POIN60K | 1.1  | 133.7          | 121.5454              |
| 39.0 WEST    | POIN60L | 1.0  | 111.2          | 111.2                 |
| 39.0 WEST    | POIN60N | 3.0  |                | 0                     |
| 39.0 WEST    | POIN60P | 4.2  | 524.6          | 124.9047              |
| 39.0 WEST    | POIN60Q | 0.1  |                | 0                     |
| 39.0 WEST    | POIN60S | 1.1  | 124.9          | 113.5454              |
| 39.0 WEST    | POIN60T | 0.2  | 230.3          | 1151.5                |
| 39.0 WEST    | POIN60W | 1.0  | 92.6           | 92.6                  |
| 39.0 WEST    | POIN61F | 4.0  | 1494.3         | 373.575               |
| 39.0 WEST    | POIN61H | 4.0  | 543.2          | 135.8                 |
| 39.0 WEST    | POIN61J | 2.1  | 602.0          | 286.6666              |

|                   |     |        |        |          |                |
|-------------------|-----|--------|--------|----------|----------------|
| 39.0 WEST POIN61M | 3.1 | 1425.5 |        | 459.8387 |                |
| WEST POIN61N      | 0.0 | 6.5    |        | ERR      |                |
| 39.0 WEST POIN61R | 2.1 |        |        | 0        |                |
| 39.0 WEST POIN61U | 1.1 |        |        | 0        |                |
| 39.0 WEST POIN62A | 3.3 | 586.9  |        | 177.8484 |                |
| 39.0 WEST POIN62B | 8.0 | 895.2  | 7258.6 | 48.2     | 111.9 150.5933 |
| 40.0 AHS STAFF600 | 0.0 |        |        | ERR      |                |
| 40.0 AHS STAFF60A | 1.0 |        |        | 0        |                |
| 40.0 AHS STAFF60C | 2.0 |        |        | 0        |                |
| 40.0 AHS STAFF60J | 1.0 |        |        | 0        |                |
| 40.0 AHS STAFF60K | 0.0 |        |        | ERR      |                |
| 40.0 AHS STAFF60L | 0.0 |        |        | ERR      |                |
| 40.0 AHS STAFF60W | 1.0 |        |        | 0        |                |
| 40.0 AHS STAFF61F | 1.0 |        |        | 0        |                |
| 40.0 AHS STAFF61H | 1.0 |        |        | 0        |                |
| 40.0 AHS STAFF61J | 1.0 |        |        | 0        |                |
| 40.0 AHS STAFF61M | 1.0 |        |        | 0        |                |
| 40.0 AHS STAFF61N | 5.0 |        |        | 0        |                |
| 40.0 AHS STAFF61U | 1.0 |        |        | 0        |                |
| 40.0 AHS STAFF62A | 0.0 |        |        | ERR      |                |
| 40.0 AHS STAFF62B | 6.0 |        | 21     | 0        |                |
| 42.0 HDQ HSC 60A  | 2.0 |        |        | 0        |                |
| 42.0 HDQ HSC 60C  | 2.0 |        |        | 0        |                |
| 42.0 HDQ HSC 60D  | 1.0 |        |        | 0        |                |
| 42.0 HDQ HSC 60L  | 0.0 |        |        | ERR      |                |
| 42.0 HDQ HSC 60W  | 1.0 |        |        | 0        |                |
| 42.0 HDQ HSC 61F  | 0.0 |        |        | ERR      |                |
| 42.0 HDQ HSC 61H  | 0.0 |        |        | ERR      |                |
| 42.0 HDQ HSC 61J  | 1.0 |        |        | 0        |                |
| 42.0 HDQ HSC 61N  | 1.0 |        |        | 0        |                |
| 42.0 HDQ HSC 61U  | 0.0 |        |        | ERR      |                |
| 42.0 HDQ HSC 62A  | 1.0 |        |        | 0        |                |
| 44.0 USAEHA 60C   | 0.0 |        |        | ERR      |                |
| 44.0 USAEHA 60D   | 0.0 |        | 9      | ERR      |                |

TASKINGS FOR MC OFFICERS  
SELECTED BY  
AREA OF CONCENTRATION

| AREA<br>OF<br>CONC.   | HOW<br>MANY<br>DOCS | START<br>DATE | END<br>DATE | TASK<br>PUR-<br>POSE | TOTAL<br>DAYS | USE<br>CODE<br>OF<br>TASK |
|-----------------------|---------------------|---------------|-------------|----------------------|---------------|---------------------------|
| <b>** BAMC</b>        |                     |               |             |                      |               |                           |
| 11A                   | 1                   | 09/16/88      | 10/11/88    | C,502 HOOD           | 27            | FTXA                      |
| 61J                   | 1                   | 10/14/88      | 10/21/88    | C4                   | 9             | C4                        |
| 62A                   | 1                   | 10/28/88      | 11/04/88    | C4                   | 9             | C4                        |
| 61J                   | 1                   | 12/02/88      | 12/09/88    | C4                   | 9             | C4                        |
| 62A                   | 1                   | 01/06/89      | 01/13/89    | C4                   | 9             | C4                        |
| 62A                   | 1                   | 01/20/89      | 01/27/89    | C4                   | 9             | C4                        |
| 61J                   | 1                   | 02/03/89      | 02/10/89    | C4                   | 9             | C4                        |
| 62A                   | 1                   | 02/24/89      | 03/03/89    | C4                   | 9             | C4                        |
| 62A                   | 1                   | 03/10/89      | 03/17/89    | C4                   | 9             | C4                        |
| 61J                   | 1                   | 03/31/89      | 04/07/89    | C4                   | 9             | C4                        |
| 62A                   | 1                   | 04/14/89      | 04/21/89    | C4                   | 9             | C4                        |
| 61J                   | 1                   | 04/28/89      | 05/05/89    | C4                   | 9             | C4                        |
| 61J                   | 1                   | 06/02/89      | 06/09/89    | C4                   | 9             | C4                        |
| 62A                   | 1                   | 06/16/89      | 06/23/89    | C4                   | 9             | C4                        |
| 62A                   | 1                   | 07/14/89      | 07/21/89    | C4                   | 9             | C4                        |
| 61J                   | 1                   | 07/28/89      | 08/04/89    | C4                   | 9             | C4                        |
| 61J                   | 1                   | 08/11/89      | 08/18/89    | C4                   | 9             | C4                        |
| 62A                   | 1                   | 08/25/89      | 09/01/89    | C4                   | 9             | C4                        |
| 61J                   | 1                   | 09/08/89      | 09/15/89    | C4                   | 9             | C4                        |
| 62A                   | 1                   | 09/22/89      | 09/29/89    | C4                   | 9             | C4                        |
| 61J                   | 1                   | 01/24/89      | 07/26/89    | HONDURAS             | 185           | HOND                      |
| 60E                   | 1                   | 04/10/89      | 05/04/89    | 197 SFT BDE NTC      | 26            | FTXA                      |
| 60E                   | 1                   | 08/02/89      | 08/30/89    | 1,17 INF BN NTC      | 31            | FTXA                      |
| 62A                   | 1                   | 07/10/89      | 07/14/89    | ADVISORY BOARD       | 5             | BORD                      |
| 60N                   | 1                   | 11/05/88      | 11/20/88    | HONDURAS             | 19            | HOND                      |
| 61Z                   | 1                   | 11/11/88      | 11/13/88    | HATTIESBURG          | 5             | HATT                      |
| 61Z                   | 1                   | 12/15/88      | 12/19/88    | PUERTO RICO          | 8             | PR                        |
| 60J                   | 1                   | 01/17/89      | 01/19/89    | HOOD                 | 4             | HD                        |
| 61J                   | 1                   | 01/16/89      | 01/17/89    | SILL                 | 4             | SILL                      |
| 60N                   | 1                   | 02/11/89      | 02/26/89    | HONDURAS             | 19            | HOND                      |
| 60N                   | 1                   | 02/11/89      | 02/26/89    | HONDURAS             | 19            | HOND                      |
| 61G                   | 1                   | 03/05/89      | 03/18/89    | LAMC                 | 16            | LAMC                      |
| 60H                   | 1                   | 02/28/89      | 03/02/89    | BRAGG                | 5             | BRAG                      |
| 61G                   | 1                   | 04/02/89      | 04/16/89    | LAMC                 | 17            | LAMC                      |
| 62A                   | 1                   | 04/11/89      | 05/04/89    | IRWIN                | 26            | IR                        |
| 60N                   | 1                   | 06/14/89      | 06/23/89    | USSR                 | 13            | USSR                      |
| 60N                   | 1                   | 06/14/89      | 06/23/89    | USSR                 | 10            | MISC                      |
| 60N                   | 1                   | 08/30/89      | 08/06/89    | OKINAWA, JAPAN       | 7             | MISC                      |
| 60N                   | 1                   | 09/12/89      | 09/14/89    | CLARKSVILLE, TN      | 3             | MISC                      |
| <b>** Subtotal **</b> |                     |               |             |                      | 39            | 620                       |

\*\* DDEAMC

|     |   |          |          |                |     |      |
|-----|---|----------|----------|----------------|-----|------|
| 61M | 1 | 09/01/88 | 10/05/88 | TANC TDY       | 36  | INTT |
| 61J | 1 | 10/14/88 | 10/21/88 | C4             | 9   | C4   |
| 62A | 1 | 10/28/88 | 11/04/88 | C4             | 9   | C4   |
| 61J | 1 | 12/02/88 | 12/09/88 | C4             | 9   | C4   |
| 61J | 1 | 01/06/89 | 01/13/89 | C4             | 9   | C4   |
| 62A | 1 | 01/20/89 | 01/27/89 | C4             | 9   | C4   |
| 61J | 1 | 02/03/89 | 02/10/89 | C4             | 9   | C4   |
| 61J | 1 | 02/24/89 | 03/03/89 | C4             | 9   | C4   |
| 62A | 1 | 03/10/89 | 03/17/89 | C4             | 9   | C4   |
| 62A | 1 | 03/31/89 | 04/07/89 | C4             | 9   | C4   |
| 61J | 1 | 04/14/89 | 04/21/89 | C4             | 9   | C4   |
| 62A | 1 | 04/28/89 | 05/05/89 | C4             | 9   | C4   |
| 62A | 1 | 06/02/89 | 06/09/89 | C4             | 9   | C4   |
| 61J | 1 | 06/16/89 | 06/23/89 | C4             | 9   | C4   |
| 62A | 1 | 07/14/89 | 07/21/89 | C4             | 9   | C4   |
| 61J | 1 | 07/28/89 | 08/04/89 | C4             | 9   | C4   |
| 62A | 1 | 08/11/89 | 08/18/89 | C4             | 9   | C4   |
| 61J | 1 | 08/25/89 | 09/01/89 | C4             | 9   | C4   |
| 61J | 1 | 09/08/89 | 09/15/89 | C4             | 9   | C4   |
| 62A | 1 | 09/22/89 | 09/29/89 | C4             | 9   | C4   |
| 61H | 1 | 02/19/89 | 08/21/89 | HOND ROTATION  | 185 | HOND |
| 62A | 1 | 02/15/89 | 03/20/89 | NTC W/ C,5 FSB | 35  | FTXA |
| 60P | 1 | 03/03/89 | 03/24/89 | GUYANA, 44 MED | 23  | FTXA |
| 61H | 1 | 07/26/89 | 08/15/89 | BOY SCOUT JAMB | 22  | MISC |
| 61H | 1 | 07/06/89 | 07/24/89 | C.115 FSB NTC  | 20  | FTXA |
| 61M | 1 | 05/09/89 | 05/15/89 | 28 CSH MEDEX   | 8   | FTXA |
| 60A | 1 | 07/26/89 | 08/13/89 | BOY SCOUT CDR  | 21  | MISC |
| 60P | 1 | 05/08/89 | 05/26/89 | POLK MEDDAC    | 21  | INTT |
| 60J | 1 | 09/01/89 | 09/14/89 | MALDIVES       | 12  | FTXA |
| 61M | 1 | 09/24/89 | 09/30/89 | ECUADOR        | 10  | FTXA |

\*\* Subtotal \*\*

30

571

\*\* LAMC

|     |   |          |          |                |    |       |
|-----|---|----------|----------|----------------|----|-------|
| 60E | 1 | 08/22/88 | 10/04/88 | REF W/3 ACR    | 45 | REF88 |
| 62A | 1 | 10/14/88 | 10/21/88 | C4             | 9  | C4    |
| 61J | 1 | 10/28/88 | 11/04/88 | C4             | 9  | C4    |
| 61J | 1 | 12/02/88 | 12/09/88 | C4             | 9  | C4    |
| 61J | 1 | 01/06/89 | 01/13/89 | C4             | 9  | C4    |
| 61J | 1 | 01/20/89 | 01/27/89 | C4             | 9  | C4    |
| 62A | 1 | 02/03/89 | 02/10/89 | C4             | 9  | C4    |
| 62A | 1 | 02/24/89 | 03/03/89 | C4             | 9  | C4    |
| 61J | 1 | 03/10/89 | 03/17/89 | C4             | 9  | C4    |
| 62A | 1 | 03/31/89 | 04/07/89 | C4             | 9  | C4    |
| 61J | 1 | 04/14/89 | 04/21/89 | C4             | 9  | C4    |
| 62A | 1 | 04/28/89 | 05/05/89 | C4             | 9  | C4    |
| 62A | 1 | 06/02/89 | 06/09/89 | C4             | 9  | C4    |
| 62A | 1 | 06/16/89 | 06/23/89 | C4             | 9  | C4    |
| 61J | 1 | 07/14/89 | 07/21/89 | C4             | 9  | C4    |
| 62A | 1 | 07/28/89 | 08/04/89 | C4             | 9  | C4    |
| 62A | 1 | 08/11/89 | 08/18/89 | C4             | 9  | C4    |
| 61J | 1 | 08/25/89 | 09/01/89 | C4             | 9  | C4    |
| 62A | 1 | 09/08/89 | 09/15/89 | C4             | 9  | C4    |
| 61J | 1 | 09/22/89 | 09/29/89 | C4             | 9  | C4    |
| 60E | 1 | 06/02/89 | 06/18/89 | FUERTES CAM 89 | 19 | FTXA  |
| 60E | 1 | 06/16/89 | 07/02/89 | FUERTES CAM 89 | 19 | FTXA  |
| 60E | 1 | 06/30/89 | 07/16/89 | FUERTES CAM 89 | 19 | FTXA  |
| 60E | 1 | 09/15/89 | 10/07/89 | NTC - FT IRWIN | 25 | FTXA  |

\*\* Subtotal \*\*

24

291

\*\* FAMC

|     |   |          |          |                |     |      |
|-----|---|----------|----------|----------------|-----|------|
| 60P | 1 | 05/26/88 | 11/25/88 | HONDURAS       | 185 | HOND |
| 60E | 1 | 08/28/88 | 10/19/88 | REF W/517TH    | 54  | RF88 |
| 60E | 1 | 08/28/88 | 10/19/88 | REF W/517TH    | 54  | RF88 |
| 61J | 1 | 10/14/88 | 10/21/88 | C4             | 9   | C4   |
| 62A | 1 | 10/28/88 | 11/04/88 | C4             | 9   | C4   |
| 61J | 1 | 12/02/88 | 12/09/88 | C4             | 9   | C4   |
| 61J | 1 | 01/06/89 | 01/13/89 | C4             | 9   | C4   |
| 62A | 1 | 01/20/89 | 01/27/89 | C4             | 9   | C4   |
| 61J | 1 | 02/03/89 | 02/10/89 | C4             | 9   | C4   |
| 61J | 1 | 02/24/89 | 03/03/89 | C4             | 9   | C4   |
| 62A | 1 | 03/10/89 | 03/17/89 | C4             | 9   | C4   |
| 61J | 1 | 03/31/89 | 04/07/89 | C4             | 9   | C4   |
| 61J | 1 | 04/14/89 | 04/21/89 | C4             | 9   | C4   |
| 62A | 1 | 04/28/89 | 05/05/89 | C4             | 9   | C4   |
| 62A | 1 | 06/02/89 | 06/09/89 | C4             | 9   | C4   |
| 61J | 1 | 06/16/89 | 06/23/89 | C4             | 9   | C4   |
| 62A | 1 | 07/14/89 | 07/21/89 | C4             | 9   | C4   |
| 62A | 1 | 07/28/89 | 08/04/89 | C4             | 9   | C4   |
| 61J | 1 | 08/11/89 | 08/18/89 | C4             | 9   | C4   |
| 62A | 1 | 08/25/89 | 09/01/89 | C4             | 9   | C4   |
| 61J | 1 | 09/08/89 | 09/15/89 | C4             | 9   | C4   |
| 62A | 1 | 09/22/89 | 09/29/89 | C4             | 9   | C4   |
| 60E | 1 | 01/02/89 | 02/02/89 | NTC W/ 1ST CAV | 33  | FTXA |
| 61J | 1 | 02/28/89 | 08/30/89 | HONDURAS       | 185 | HOND |
| 60E | 1 | 08/18/89 | 09/15/89 | NTC - FT IRWIN | 31  | FTXA |
| 60P | 1 | 08/28/89 | 09/25/89 | FT. SILL       | 31  | FTXA |
| 61F | 1 | 07/06/89 | 08/13/89 | FT SILL        | 41  | FTXA |

\*\* Subtotal \*\*

27

185

\*\* MAMC

|     |   |          |          |                 |     |      |
|-----|---|----------|----------|-----------------|-----|------|
| 62A | 1 | 10/14/88 | 10/21/88 | C4              | 9   | C4   |
| 61J | 1 | 10/28/88 | 11/04/88 | C4              | 9   | C4   |
| 62A | 1 | 12/02/88 | 12/09/88 | C4              | 9   | C4   |
| 62A | 1 | 01/06/89 | 01/13/89 | C4              | 9   | C4   |
| 61J | 1 | 01/20/89 | 01/27/89 | C4              | 9   | C4   |
| 62A | 1 | 02/03/89 | 02/10/89 | C4              | 9   | C4   |
| 62A | 1 | 02/24/89 | 03/03/89 | C4              | 9   | C4   |
| 61J | 1 | 03/10/89 | 03/17/89 | C4              | 9   | C4   |
| 61J | 1 | 03/31/89 | 04/07/89 | C4              | 9   | C4   |
| 62A | 1 | 04/14/89 | 04/21/89 | C4              | 9   | C4   |
| 61J | 1 | 04/28/89 | 05/05/89 | C4              | 9   | C4   |
| 61J | 1 | 06/02/89 | 06/09/89 | C4              | 9   | C4   |
| 62A | 1 | 06/16/89 | 06/23/89 | C4              | 9   | C4   |
| 61J | 1 | 07/14/89 | 07/21/89 | C4              | 9   | C4   |
| 62A | 1 | 07/28/89 | 08/04/89 | C4              | 9   | C4   |
| 61J | 1 | 08/11/89 | 08/18/89 | C4              | 9   | C4   |
| 61J | 1 | 08/25/89 | 09/01/89 | C4              | 9   | C4   |
| 62A | 1 | 09/08/89 | 09/15/89 | C4              | 9   | C4   |
| 61J | 1 | 09/22/89 | 09/29/89 | C4              | 9   | C4   |
| 60E | 2 | 03/03/89 | 05/18/89 | 423 Med Co SPRT | 156 | FTXA |
| 60E | 1 | 11/11/88 | 12/08/88 | 1SR SFG(A)      | 29  | FTXA |
| 60S | 1 | 11/11/88 | 12/07/88 | BANGLADESH      | 28  | MISC |
| 60E | 1 | 01/02/89 | 02/02/89 | NTC W/ 1ST CAV  | 33  | FTXA |
| 61M | 1 | 01/15/89 | 01/21/89 | 62 MED GRP LA   | 9   | FTXA |
| 60H | 1 | 01/15/89 | 01/21/89 | 62 MED GRP LA   | ?   | FTXA |
| 61H | 1 | 08/09/89 | 08/26/89 | Costa Rica      | 21  | FTXA |
| 60P | 1 | 09/29/89 | 10/08/89 | KOREA           | 13  | KORE |

\*\* Subtotal \*\*

28

469

\*\* TANU

|     |   |          |          |                |     |      |
|-----|---|----------|----------|----------------|-----|------|
| 60E | 1 | 10/01/88 | 11/05/88 | DIAMOND DOLLAR | 37  | FTXA |
| 60E | 1 | 10/18/88 | 11/19/88 | ORIENT SHIELD  | 34  | FTXA |
| 62A | 1 | 10/14/88 | 10/21/88 | C4             | 9   | C4   |
| 62A | 1 | 12/02/88 | 12/09/88 | C4             | 9   | C4   |
| 61J | 1 | 01/06/89 | 01/13/89 | C4             | 9   | C4   |
| 62A | 1 | 02/03/89 | 02/10/89 | C4             | 9   | C4   |
| 61J | 1 | 02/24/89 | 03/03/89 | C4             | 9   | C4   |
| 62A | 1 | 03/31/89 | 04/07/89 | C4             | 9   | C4   |
| 61J | 1 | 04/14/89 | 04/21/89 | C4             | 9   | C4   |
| 62A | 1 | 06/02/89 | 06/09/89 | C4             | 9   | C4   |
| 62A | 1 | 06/16/89 | 06/23/89 | C4             | 9   | C4   |
| 61J | 1 | 07/28/89 | 08/04/89 | C4             | 9   | C4   |
| 62A | 1 | 08/11/89 | 08/18/89 | C4             | 9   | C4   |
| 61J | 1 | 09/08/89 | 09/15/89 | C4             | 9   | C4   |
| 62A | 1 | 09/22/89 | 09/29/89 | C4             | 9   | C4   |
| 60P | 1 | 11/02/88 | 12/21/88 | WESTCOM PAPUA  | 51  | MISC |
| 60E | 1 | 05/15/89 | 07/01/89 | COBRA GOLD 89  | 49  | FTXA |
| 61H | 1 | 05/26/89 | 11/25/89 | HOND           | 187 | HOND |
| 60P | 1 | 09/01/89 | 09/14/89 | MALDIVES       | 19  | HALD |
| 61M | 1 | 09/01/89 | 09/14/89 | MALDIVES       | 19  | HALD |

\*\* Subtotal \*\*

|    |     |
|----|-----|
| 20 | 513 |
|----|-----|

\*\* WBAMC

|     |   |          |          |                 |     |      |
|-----|---|----------|----------|-----------------|-----|------|
| 61F | 1 | 05/25/88 | 11/24/88 | HONDURAS        | 135 | HOND |
| 60E | 1 | 08/22/88 | 10/04/88 | REFORGER        | 45  | RF88 |
| 60E | 1 | 08/22/88 | 10/04/88 | REFORGER        | 45  | RF88 |
| 62A | 1 | 10/14/88 | 10/21/88 | C4              | 9   | C4   |
| 61J | 1 | 10/28/88 | 11/04/88 | C4              | 9   | C4   |
| 62A | 1 | 12/02/88 | 12/09/88 | C4              | 9   | C4   |
| 62A | 1 | 01/06/89 | 01/13/89 | C4              | 9   | C4   |
| 61J | 1 | 01/20/89 | 01/27/89 | C4              | 9   | C4   |
| 61J | 1 | 02/06/89 | 02/13/89 | C4              | 9   | C4   |
| 62A | 1 | 02/24/89 | 03/03/89 | C4              | 9   | C4   |
| 61J | 1 | 03/10/89 | 03/17/89 | C4              | 9   | C4   |
| 62A | 1 | 03/31/89 | 04/07/89 | C4              | 9   | C4   |
| 62A | 1 | 04/14/89 | 04/21/89 | C4              | 9   | C4   |
| 61J | 1 | 04/28/89 | 05/05/89 | C4              | 9   | C4   |
| 61J | 1 | 06/02/89 | 06/09/89 | C4              | 9   | C4   |
| 61J | 1 | 06/16/89 | 06/23/89 | C4              | 9   | C4   |
| 61J | 1 | 07/14/89 | 07/21/89 | C4              | 9   | C4   |
| 62A | 1 | 07/28/89 | 08/04/89 | C4              | 9   | C4   |
| 61J | 1 | 08/11/89 | 08/18/89 | C4              | 9   | C4   |
| 61J | 1 | 08/25/89 | 09/01/89 | C4              | 9   | C4   |
| 62A | 1 | 09/08/89 | 09/15/89 | C4              | 9   | C4   |
| 61J | 1 | 09/22/89 | 09/29/89 | C4              | 9   | C4   |
| 60E | 1 | 01/03/89 | 05/12/89 | FAADS TEST WSMR | 132 | TEST |
| 60E | 1 | 07/05/89 | 09/08/89 | FAADS TEST WSMR | 67  | TEST |
| 60E | 1 | 08/15/88 | 12/22/88 | FAADS TEST WSMR | 132 | TEST |
| 60E | 2 | 04/24/89 | 07/01/89 | 3D ACR TO NTC   | 110 | FTXA |
| 60A | 1 | 05/01/89 | 06/30/89 | WHITE SANDS, NM | 3   | FTXA |
| 60E | 1 | 12/10/89 | 03/22/89 | FT. BLISS       | 15  | FTXA |

\*\* Subtotal \*\*

|    |     |
|----|-----|
| 29 | 133 |
|----|-----|

\*\* ALASKA

|     |   |          |          |               |    |      |
|-----|---|----------|----------|---------------|----|------|
| 60E | 1 | 10/06/88 | 11/04/88 | NTC W/5TH LD  | 31 | FTXA |
| 60E | 2 | 01/25/89 | 02/24/89 | BRIM FROST    | 64 | FTXA |
| 60E | 1 | 02/28/89 | 03/11/89 | LOCAL ARRANGE | 13 | FTXA |
| 60E | 1 | 03/11/89 | 03/22/89 | LOCAL ARRANGE | 13 | FTXA |
| 60E | 1 | 03/11/89 | 03/22/89 | ALASKA        | 12 | FTXA |
| 60E | 1 | 02/28/89 | 03/10/89 | ALASKA        | 12 | FTXA |

\*\* Subtotal \*\*

|   |     |
|---|-----|
| 7 | 145 |
|---|-----|

\*\* BELVOIR

|     |   |          |          |             |     |      |
|-----|---|----------|----------|-------------|-----|------|
| 11A | 1 | 04/18/88 | 10/05/88 | AT AP HILL  | 172 | ATST |
| 60E | 1 | 01/01/89 | 01/27/89 | 908 PROJECT | 30  | 908P |

\*\* Subtotal \*\*

|   |     |
|---|-----|
| 2 | 202 |
|---|-----|

\*\* BENNING

|     |   |          |          |                 |     |       |
|-----|---|----------|----------|-----------------|-----|-------|
| 11A | 1 | 04/18/88 | 10/05/88 | AT AP HILL      | 172 | ATST  |
| 61N | 1 | 06/15/88 | 10/17/88 | HONDURAS        | 126 | HOND  |
| 61J | 1 | 08/06/88 | 02/05/89 | HONDURAS        | 135 | HOND  |
| 60E | 1 | 09/01/88 | 10/09/88 | REF W/197TH     | 40  | REF88 |
| 60E | 1 | 09/01/88 | 10/09/88 | REF W/197TH     | 40  | REF88 |
| 60E | 1 | 09/01/88 | 10/09/88 | REF W/197TH     | 40  | REF88 |
| 60K | 1 | 01/21/89 | 04/25/89 | EL SALVADOR     | 96  | ELSL  |
| 61M | 1 | 01/29/89 | 07/31/89 | HONDURAS ROTAT  | 135 | HOND  |
| 11A | 1 | 07/09/89 | 09/12/89 | AT SPT CP PARKS | 68  | ATST  |
| 61H | 1 | 08/09/89 | 08/26/89 | Costa Rica      | 21  | FTXA  |

\*\* Subtotal \*\*

|    |     |
|----|-----|
| 10 | 973 |
|----|-----|

\*\* BRAGG

|     |   |          |          |                 |     |      |
|-----|---|----------|----------|-----------------|-----|------|
| 61J | 2 | 12/02/88 | 12/14/88 | 28TH CSH        | 23  | FTXA |
| 61M | 1 | 12/02/88 | 12/02/88 | 28TH CSH        | 8   | FTXA |
| 60E | 2 | 12/02/88 | 12/14/88 | 28TH CSH        | 23  | FTXA |
| 60N | 1 | 12/02/88 | 12/08/88 | 28TH CSH        | 8   | FTXA |
| 60E | 1 | 01/05/89 | 04/04/89 | OCONUS W/37 ENG | 90  | FTXA |
| 61J | 1 | 04/15/89 | 07/15/89 | EL SALVADOR     | 93  | ELSL |
| 61J | 4 | 03/07/88 | 12/12/88 | OCONUS          | 282 | MISC |
| 61H | 1 | 03/03/89 | 03/24/89 | GUYANA, 44 MED  | 23  | FTXA |
| 61F | 1 | 03/29/89 | 09/23/89 | HOND ROTATION   | 183 | HOND |
| 60E | 2 | 05/09/89 | 05/23/89 | 28 CSH MEDEX 89 | 32  | FTXA |
| 60N | 1 | 05/09/89 | 05/15/89 | 28 CSH MEDEX    | 8   | FTXA |
| 60E | 2 | 05/09/89 | 05/21/89 | 28 CSH MEDEX    | 28  | FTXA |
| 11A | 1 | 04/03/89 | 09/04/89 | AT SET INDIANGP | 15  | ATST |
| 61H | 1 | 01/16/89 | 01/20/89 | GUYANA          | 7   | FTXA |
| 61J | 1 | 09/11/89 | 09/23/89 | EX MARKET SQUAR | 13  | FTXA |
| 61H | 1 | 09/11/89 | 09/23/89 | EX MARKET SQUAR | 13  | FTXA |
| 61H | 1 | 09/11/89 | 09/23/89 | FORT BRAGG      | 13  | MISC |
| 61H | 1 | 09/11/89 | 09/23/89 | FORT BRAGG      | 13  | MISC |
| 60E | 1 | 09/11/89 | 09/23/89 | FORT BRAGG      | 13  | MISC |
| 60E | 1 | 09/11/89 | 09/23/89 | FORT BRAGG      | 13  | MISC |
| 60E | 1 | 09/11/89 | 09/23/89 | MRKT SQUARE III | 13  | FTXA |
| 60E | 1 | 09/11/89 | 09/23/89 | MRKT SQUARE III | 13  | FTXA |
| 60E | 1 | 09/11/89 | 09/23/89 | MRKT SQUARE III | 13  | FTXA |
| 60E | 1 | 09/11/89 | 09/23/89 | MRKT SQUARE III | 13  | FTXA |
| 61H | 1 | 09/15/89 | 09/30/89 | 44th Med        | 12  | FTXA |
| 61H | 1 | 09/15/89 | 09/30/89 | 44TH MED        | 18  | FTXA |

\*\* Subtotal \*\*

|    |      |
|----|------|
| 33 | 1143 |
|----|------|

|                       |    |          |          |                  |          |
|-----------------------|----|----------|----------|------------------|----------|
| <b>** CAMPBELL</b>    |    |          |          |                  |          |
| 60E                   | 1  | 12/12/88 | 12/26/88 | FTX ON POST      | 16 FTXA  |
| 60E                   | 1  | 01/30/89 | 02/23/89 | 201/701 SPT BN   | 26 FTXA  |
| 60E                   | 1  | 09/07/89 | 09/23/89 | 326TH MED BN     | 19 FTXA  |
| 60E                   | 1  | 09/07/89 | 09/23/89 | JRTC Ft CHAFFEE  | 19 FTXA  |
| <b>** Subtotal **</b> |    |          |          |                  |          |
|                       | 4  |          |          |                  | 80       |
| <b>** CARSON</b>      |    |          |          |                  |          |
| 60E                   | 1  | 01/05/89 | 02/11/89 | PINON CANYON     | 39 FTXA  |
| 60E                   | 1  | 02/27/89 | 03/30/89 | PINON CANYON     | 33 FTXA  |
| 60E                   | 1  | 03/13/89 | 04/14/89 | 1 BDE NTC        | 34 FTXA  |
| 60E                   | 1  | 05/22/89 | 06/30/89 | 204 FSB NTC      | 41 FTXA  |
| 60E                   | 1  | 08/18/89 | 09/15/89 | NTC - FT IRWIN   | 31 FTXA  |
| <b>** Subtotal **</b> |    |          |          |                  |          |
|                       | 5  |          |          |                  | 178      |
| <b>** DEVENS</b>      |    |          |          |                  |          |
| 60E                   | 1  | 10/13/88 | 11/26/88 | NTC W/4TH FSB    | 46 FTXA  |
| 60E                   | 1  | 09/09/88 | 10/07/88 | REF W/7TH ID     | 30 RF88  |
| 61F                   | 1  | 05/17/89 | 11/16/89 | HOND ROTATION    | 185 HOND |
| <b>** Subtotal **</b> |    |          |          |                  |          |
|                       | 3  |          |          |                  | 261      |
| <b>** DRUM</b>        |    |          |          |                  |          |
| 60E                   | 1  | 01/01/89 | 01/01/89 | TEST             | 1        |
| <b>** Subtotal **</b> |    |          |          |                  |          |
|                       | 1  |          |          |                  | 1        |
| <b>** DIX</b>         |    |          |          |                  |          |
| 62A                   | 1  | 01/03/89 | 06/06/89 | 16 MASH HOND AT  | 156 FTXA |
| 60E                   | 1  | 04/24/89 | 09/05/89 | AT SPT PICKETT   | 137 AT   |
| <b>** Subtotal **</b> |    |          |          |                  |          |
|                       | 2  |          |          |                  | 293      |
| <b>** EUSTIS</b>      |    |          |          |                  |          |
| 60P                   | 1  | 11/12/88 | 03/14/89 | HONDURAS         | 185 HOND |
| 61F                   | 1  | 07/26/89 | 08/15/89 | BOY SCOUT JAMB   | 22 MISC  |
| 60P                   | 1  | 07/26/89 | 08/15/89 | BOY SCOUT JAMB   | 22 MISC  |
| 60E                   | 1  | 09/01/89 | 09/18/89 | BOLIVIA          | 22 BOLV  |
| <b>** Subtotal **</b> |    |          |          |                  |          |
|                       | 4  |          |          |                  | 251      |
| <b>** HOOD</b>        |    |          |          |                  |          |
| 60E                   | 1  | 09/16/88 | 10/11/88 | C, SGT HOOD      | 27 FTXA  |
| 60E                   | 2  | 01/02/89 | 03/03/89 | NTC W/ 1ST CAV   | 124 FTXA |
| 60E                   | 1  | 03/13/89 | 03/20/89 | TMC N. HOOD RC   | 9 MISC   |
| 60E                   | 1  | 04/03/89 | 04/10/89 | TMC N. HOOD RC   | 9 MISC   |
| 60E                   | 1  | 04/24/89 | 05/01/89 | TMC N. HOOD RC   | 9 MISC   |
| 60E                   | 1  | 05/15/89 | 05/22/89 | TMC N. HOOD RC   | 9 MISC   |
| 60E                   | 1  | 06/05/89 | 06/12/89 | TMC N. HOOD RC   | 9 MISC   |
| 60E                   | 1  | 04/25/89 | 06/08/89 | 75 SPT BN RENDV  | 46 FTXA  |
| 60E                   | 1  | 04/24/89 | 09/05/89 | AT SPT PICKETT   | 137 AT   |
| 60E                   | 1  | 07/03/89 | 07/30/89 | NTC Ft IRWIN, CA | 30 FTXA  |
| 60E                   | 1  | 07/03/89 | 07/30/89 | NTC Ft IRWIN, CA | 30 FTXA  |
| 61J                   | 1  | 09/11/89 | 12/09/89 | EL SALVADOR      | 93 SALV  |
| 61J                   | 1  | 09/11/89 | 12/09/89 | EL SALVADOR      | 93 ELSA  |
| 61H                   | 1  | 01/14/89 | 01/28/89 | PARAGUAY         | 17 PARA  |
| 61H                   | 1  | 01/14/89 | 01/28/89 | PARAGUAY         | 17 PARA  |
| <b>** Subtotal **</b> |    |          |          |                  |          |
|                       | 16 |          |          |                  | 559      |

|                        |   |          |          |                 |          |
|------------------------|---|----------|----------|-----------------|----------|
| <b>** BEN HARRISON</b> |   |          |          |                 |          |
| 61H                    | 1 | 04/21/88 | 10/21/88 | HONDURAS        | 135 HOND |
| <b>** Subtotal **</b>  |   |          |          |                 |          |
|                        | 1 |          |          |                 | 185      |
| <b>** HUACHUCA</b>     |   |          |          |                 |          |
| 60E                    | 1 | 08/28/88 | 10/19/88 | REF W/517TH CLR | 54 RF88  |
| 60E                    | 1 | 08/28/88 | 10/19/88 | REF W/517TH CLR | 54 RF88  |
| 61J                    | 1 | 08/25/89 | 02/19/90 | HONDURAS        | 182 HOND |
| <b>** Subtotal **</b>  |   |          |          |                 |          |
|                        | 3 |          |          |                 | 290      |
| <b>** IRWIN</b>        |   |          |          |                 |          |
| 60E                    | 1 | 10/05/88 | 10/26/88 | BOLD THRUST     | 22 FTXA  |
| 60E                    | 1 | 09/09/88 | 10/07/88 | RF38 BF         | 30 RF88  |
| 60E                    | 1 | 11/28/88 | 12/24/88 | B,7 MED BN      | 28 FTXA  |
| 60E                    | 1 | 03/13/89 | 04/14/89 | 1 BDE NTC       | 34 FTXA  |
| 60E                    | 1 | 09/15/89 | 10/07/89 | NTC - FT IRWIN  | 23 FTXA  |
| <b>** Subtotal **</b>  |   |          |          |                 |          |
|                        | 5 |          |          |                 | 137      |
| <b>** JACKSON</b>      |   |          |          |                 |          |
| 61J                    | 1 | 09/01/88 | 03/03/89 | HONDURAS        | 135 HOND |
| 61J                    | 1 | 05/09/89 | 05/15/89 | 28 CSH MEDEX    | 8 FTXA   |
| <b>** Subtotal **</b>  |   |          |          |                 |          |
|                        | 2 |          |          |                 | 193      |
| <b>** KNOX</b>         |   |          |          |                 |          |
| 60E                    | 1 | 10/06/88 | 11/04/88 | NTC W/5TH ID    | 31 FTXA  |
| 60E                    | 1 | 01/03/89 | 06/06/89 | 16 MASH HOND AT | 156 FTXA |
| 60E                    | 1 | 04/24/89 | 05/28/89 | 3D ACR TO NTC   | 36 FTXA  |
| <b>** Subtotal **</b>  |   |          |          |                 |          |
|                        | 3 |          |          |                 | 223      |
| <b>** LEAVENWORTH</b>  |   |          |          |                 |          |
| 60E                    | 1 | 08/24/88 | 10/02/88 | REF W/1 ID      | 41 RF88  |
| 60E                    | 1 | 08/24/88 | 10/02/88 | REF W/1 ID      | 41 RF88  |
| 60E                    | 2 | 01/11/89 | 03/20/89 | 93D EVAC MCCOY  | 140 FTXA |
| 60E                    | 1 | 05/22/89 | 06/30/89 | 204 FSB NTC     | 41 FTXA  |
| <b>** Subtotal **</b>  |   |          |          |                 |          |
|                        | 5 |          |          |                 | 263      |
| <b>** LEE</b>          |   |          |          |                 |          |
| 11A                    | 1 | 04/18/88 | 10/05/88 | AT AP HILL      | 172 ATST |
| 60E                    | 1 | 01/25/89 | 03/04/89 | 194THARMBDE     | 40 FTXA  |
| <b>** Subtotal **</b>  |   |          |          |                 |          |
|                        | 2 |          |          |                 | 212      |

|                       |    |          |          |                 |          |
|-----------------------|----|----------|----------|-----------------|----------|
| <u>LEONARD WOOD</u>   |    |          |          |                 |          |
| 60E                   | 1  | 08/24/88 | 10/02/88 | REF W/4 ID      | 41 RF88  |
| 60T                   | 1  | 10/29/88 | 01/31/89 | EL SALVADOR     | 96 ELSL  |
| 60E                   | 1  | 09/09/88 | 10/07/88 | RF W/7TH ID     | 30 RF88  |
| 60E                   | 1  | 01/25/89 | 02/09/89 | BRIMFROST       | 17 FTXA  |
| 60E                   | 1  | 01/18/89 | 02/08/89 | 93D EVAC MCCOY  | 23 FTXA  |
| 61H                   | 1  | 01/25/89 | 03/04/89 | 194TH ARM BDE   | 40 FTXA  |
| 60E                   | 1  | 04/10/89 | 05/04/89 | 197 INF BDE NTC | 26 FTXA  |
| 61F                   | 1  | 09/25/89 | 03/22/90 | HONDURAS        | 182 HOND |
| 60E                   | 1  | 08/18/89 | 09/15/89 | NTC - FT IRWIN  | 31 FTXA  |
| <b>** Subtotal **</b> |    |          |          |                 |          |
|                       | 9  |          |          |                 | 486      |
| <u>MCCLELLAN</u>      |    |          |          |                 |          |
| 60E                   | 1  | 04/10/89 | 05/04/89 | 197 INF BDE NTC | 26 FTXA  |
| <b>** Subtotal **</b> |    |          |          |                 |          |
|                       | 1  |          |          |                 | 26       |
| <u>MEADE</u>          |    |          |          |                 |          |
| 60E                   | 1  | 05/26/89 | 06/13/89 | 75 MED DISP FTX | 20 FTXA  |
| 61M                   | 1  | 07/25/89 | 01/24/90 | HONDURAS RN     | 185 HOND |
| <b>** Subtotal **</b> |    |          |          |                 |          |
|                       | 2  |          |          |                 | 206      |
| <u>MONMOUTH</u>       |    |          |          |                 |          |
| 60E                   | 1  | 09/09/88 | 10/07/88 | RE W/7TH ID     | 30 RF88  |
| 60E                   | 1  | 01/27/89 | 02/24/89 | NTC W/3/37TH AR | 30 FTXA  |
| 60E                   | 1  | 09/15/89 | 10/07/89 | NTC - FT IRWIN  | 25 FTXA  |
| <b>** Subtotal **</b> |    |          |          |                 |          |
|                       | 3  |          |          |                 | 85       |
| <u>ORD</u>            |    |          |          |                 |          |
| 61M                   | 1  | 03/05/88 | 02/04/89 | HONDURAS        | 185 HOND |
| 60E                   | 1  | 10/06/88 | 10/26/88 | 7TH MED-BOLD TH | 22 FTXA  |
| 60E                   | 1  | 10/06/88 | 10/26/88 | 7TH MED-BOLD TH | 22 FTXA  |
| 60E                   | 1  | 10/06/88 | 10/26/88 | 7TH MED-BOLD TH | 22 FTXA  |
| 61M                   | 1  | 08/05/88 | 02/04/89 | HONDURAS        | 185 HOND |
| 62A                   | 1  | 03/16/89 | 03/20/89 | 5/21 INF FTX LA | 6 FTXA   |
| 62A                   | 1  | 03/19/89 | 03/23/89 | 1/9 INF FTX LA  | 6 FTXA   |
| 62A                   | 1  | 03/22/89 | 03/26/89 | 2/9 INF FTX LA  | 6 FTXA   |
| 62A                   | 1  | 03/27/89 | 03/31/89 | 7 MED FTX LA    | 6 FTXA   |
| 61H                   | 1  | 05/12/89 | 06/25/89 | Panama          | 48 FTXA  |
| 62A                   | 1  | 05/12/89 | 06/08/89 | Panama          | 31 FTXA  |
| 60E                   | 1  | 09/15/89 | 09/24/89 | UKET SQUARE III | 12 FTXA  |
| 60E                   | 1  | 09/15/89 | 09/24/89 | UKET SQUARE III | 12 FTXA  |
| 60E                   | 1  | 09/15/89 | 09/24/89 | FT BRAGG        | 12 FTXA  |
| 60E                   | 1  | 09/15/89 | 09/24/89 | FT BRAGG        | 12 FTXA  |
| <b>** Subtotal **</b> |    |          |          |                 |          |
|                       | 15 |          |          |                 | 587      |

| FANAMA         |   |          |          |                 |          |
|----------------|---|----------|----------|-----------------|----------|
| 60E            | 1 | 01/08/89 | 06/11/89 | OCONUS          | 156 FTXA |
| ** Subtotal ** |   |          |          |                 | 156      |
|                | 1 |          |          |                 |          |
| ** POLK        |   |          |          |                 |          |
| 61H            | 1 | 10/11/88 | 04/12/89 | HONDURAS        | 185 HOND |
| 60E            | 1 | 01/15/89 | 02/17/89 | NTC W/ C,5 FSB  | 35 FTXA  |
| 60E            | 1 | 07/08/89 | 07/15/89 | Ft POLK         | 8 FTXA   |
| ** Subtotal ** |   |          |          |                 | 228      |
|                | 3 |          |          |                 |          |
| ** REDSTONE    |   |          |          |                 |          |
| 60E            | 1 | 09/09/88 | 10/07/88 | REF W/7TH ID    | 20 RF88  |
| 60E            | 1 | 01/25/89 | 02/09/89 | BRIMFROST       | 17 FTXA  |
| 61H            | 1 | 08/09/89 | 02/08/90 | HOND ROTATION   | 185 HOND |
| ** Subtotal ** |   |          |          |                 | 222      |
|                | 3 |          |          |                 |          |
| ** RILEY       |   |          |          |                 |          |
| 60E            | 1 | 08/24/88 | 10/02/88 | REF W/1 ID      | 41 RF88  |
| 60E            | 1 | 08/24/88 | 10/02/88 | REF W/1ID       | 41 RF88  |
| 60E            | 1 | 08/24/88 | 10/02/88 | REF W 1 ID      | 41 RF88  |
| 61J            | 1 | 01/03/89 | 06/06/89 | 16 MASH HOND    | 156 FTXA |
| 60E            | 1 | 08/12/89 | 09/15/89 | NTC - FT IRWIN  | 31 FTXA  |
| ** Subtotal ** |   |          |          |                 | 310      |
|                | 5 |          |          |                 |          |
| ** RUCKER      |   |          |          |                 |          |
| 61N            | 1 | 04/05/89 | 05/07/89 | C, 326TH TO NTC | 34 FTXA  |
| 61N            | 1 | 06/15/89 | 10/15/89 | HOND AVIAT UNIT | 126 HOND |
| 61N            | 1 | 09/07/89 | 09/23/89 | JRTC Ft CHAFFEE | 19 FTXA  |
| ** Subtotal ** |   |          |          |                 | 179      |
|                | 3 |          |          |                 |          |
| ** SILL        |   |          |          |                 |          |
| 11A            | 1 | 05/03/88 | 11/02/88 | HONDURAS        | 185 HOND |
| 60E            | 1 | 08/24/88 | 10/02/88 | REF W/ 1 ID     | 41 RF88  |
| 60E            | 1 | 01/30/89 | 02/23/89 | 201/701 SFT BN  | 26 FTXA  |
| 60E            | 1 | 12/27/88 | 05/04/89 | HOND W/34TH ENG | 130 FTXA |
| 60E            | 1 | 09/01/89 | 09/12/89 | 1-12 FA WSUR    | 14 FTXA  |
| 60E            | 1 | 09/01/89 | 09/12/89 | WHITE SANDS, NM | 14 FTXA  |
| 60E            | 1 | 08/18/89 | 09/15/89 | NTC - FT IRWIN  | 31 FTXA  |
| ** Subtotal ** |   |          |          |                 | 441      |
|                | 7 |          |          |                 |          |
| ** STEWART     |   |          |          |                 |          |
| 61H            | 1 | 09/01/88 | 03/03/89 | HONDURAS        | 185 HOND |
| 60E            | 1 | 07/24/89 | 08/20/89 | 24 INF DIV NTC  | 30 FTXA  |
| 62A            | 1 | 07/20/89 | 09/26/89 | KINGDOM, JORDAN | 73 FTXA  |
| ** Subtotal ** |   |          |          |                 | 228      |
|                | 3 |          |          |                 |          |
| ** WEST POINT  |   |          |          |                 |          |
| 60E            | 1 | 10/13/88 | 11/26/88 | NTC W/704 MN BN | 46 FTXA  |
| 61M            | 1 | 08/21/89 | 08/25/89 | FT DEVENS       | 7 INTR   |
| ** Subtotal ** |   |          |          |                 | 53       |
|                | 2 |          |          |                 |          |
| ** HQ HSC      |   |          |          |                 |          |
| 61J            | 1 | 01/03/89 | 07/05/89 | HOND CDR DONGHU | 185 HOND |
| 61H            | 1 | 08/05/89 | 08/13/89 | HOLLOWAY AFB    | 11 MISC  |
| ** Subtotal ** |   |          |          |                 | 196      |
|                | 2 |          |          |                 |          |
| *** Total ***  |   |          |          |                 |          |

## REFERENCES

American Association of Medical Colleges (AAMC), Annual Report, 1990.

The American Medical Association, Directory of Graduate Medical Education Programs 1992 - 1993, Chicago, Il.

The American Medical Association, Physician Marketplace Statistics, 1991, Chicago, Il.

Army Regulation 40-1, Composition, Mission, and Functions of the Army Medical Department, 1 July 1983.

Army Regulation 570-5, Manpower Staffing Standards System, 30 June 1989.

Army Regulation 611-101, Commissioned Officers Classification System, 1 October 1989.

Cornell, (MAJ) Andrew B. Sr., and (BG) Ronald R. Blanck. "Medical Corps Optimization Study" (Phase II Report), Office of The (Army) Surgeon General, May 1992.

Department of Defense Instruction (DODI) 6010.8R, Manual for Medical Expense and Performance Reporting System for Fixed Military Medical and Dental Treatment Facilities, January 1991.

Department of Defense Instruction (DODM) 6010.13M, Manual for the Administration of the Civilian Health and Medical Program of the Uniformed Services (CHAMPUS), July 1991.

Hemenway, D. The Optimal Location of Doctors, The New England Journal of Medicine, Vol 306, No. 7, Feb 18, 1982, pp. 397-401.

Joint Commission for Accreditation of Healthcare Organizations (JCAHO), Accreditation Manual for Hospitals, 1990.

Klarman, HE. Economic Aspects of Projecting Requirements for Projecting Requirements for Health Manpower. Journal of Human Resources, 1969, Vol IV, No. 3, Summer: pp. 360-376.

Office of the Defense Medical Information System (DMIS) of the Office of the Assistant Secretary of Defense for Health Affairs, Users Guide, 26 January 1990.

Owens, LTC Terry L. Medical Corps Zero Based Study, May 1992.

Rodeghero, Jim and Mike Haffney. Military/Civilian Pay Comparison, October 1992, The Hay Group.

Scitovsky, AA and N. McCall. A method for Estimating Physician Requirements, Milbank Memorial Fund Quarterly (Health and Society), Summer 1976, pp. 299-320.

United States Code, Title 10, Chapter 55.

Weiner, JP, et al., Assessing a Methodology for Physician Requirement Forecasting: Replication of GMENAC's Need-based Model for the Pediatric Specialty, Medical Care, May 1987, Vol 25, No. 5, pp. 426-436.

Williams, (CPT) Thomas, and (COL) James James. "Medical Corps Optimization Study" (Phase I Report), Office of The (Army) Surgeon General, June 1990.